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CIBJO/SECTOR 3/COLOURED STONE COMMISSION

## **THE GEMSTONE BOOK**

### **Gemstones, Organic Substances & Artificial Products — Terminology & Classification**

(Including precious stones, gemstones, ornamental stones, organic substances, stones requiring general and specific information on their modifications, synthetic stones, artificial stones and imitations)

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## Foreword

CIBJO is the French acronym for the **Confédération Internationale de la Bijouterie, Joaillerie, Orfèvrerie, des Diamants, Perles et Pierres**, which translates as the International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones (normally shortened to the International Jewellery Confederation). Founded in 1926 as BIBOAH, a European organisation whose mission was to represent and advance the interests of the jewellery trade in Europe, it was reorganised in 1961 and renamed CIBJO. Today CIBJO, which is domiciled in Switzerland, has members from countries representing all five continents of the world. CIBJO printed its first deliberations on terminology and trade practices in 1968.

It is the task of CIBJO to record the accepted trade practices and nomenclature for the industry throughout the world. The records of the trade practices complement existing fair trade legislation of a nation or in the absence of relevant national laws they can be considered as trading standards. In countries where laws or norms exist, which conflict with the laws, norms or trade practices in other countries, CIBJO will support the national trade organizations to prevent trade barriers developing. The purpose of CIBJO is to encourage harmonization, promote international co-operation within the jewellery industry, and to consider issues which are of concern to the trade worldwide. Foremost amongst these the aim is to protect consumer confidence in the industry. CIBJO pursues all of these objectives through informed deliberation and by reaching decisions in accordance with its Statutes. CIBJO relies upon the initiative of its member national organizations to support and implement its decisions, and to protect the trust of the public in the industry.

The work of CIBJO is accomplished through three independent sectors within the Confederation:

Sector 1 - Jewellery manufacturing, technology and precious metals

Sector 2 - Jewellery distribution

Sector 3 - Gem Materials - cutting, trade and laboratories

The national umbrella organization for each country represents, in principle, all the national trade organizations involved in the three sectors mentioned above. This democratic structure, which has contributed to CIBJO's world-wide recognition, provides an international forum for the trade to collectively draw attention to issues and implement resulting decisions. The appointed delegates attend an annual CIBJO Congress.

Intersectoral Commissions consider detailed issues. At present there are the following Commissions:

Coloured Stone

Diamond

Ethics

Gemmological

Pearl

Marketing & Education

Precious Metals

World Jewellers Vigilance

The CIBJO Executive Committee must approve any decisions reached at Sector and Commission level by a majority of voting delegates. The Commissions for Diamonds, Gemstones, and Pearls, have collated the guidelines, which present the accepted trading practices for applying descriptions to these materials. It is in the interest of all those involved to be aware of them. Furthermore it is our mutual responsibility to support these recommendations, which concern all professional people connected with diamonds, gemstones, and pearls.

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(Until the Laboratory Book is published Article 16 of the previous Gemstone Book remains active)

# GEMSTONES, ORGANIC SUBSTANCES AND ARTIFICIAL PRODUCTS — TERMINOLOGY AND CLASSIFICATION

## 1. Scope

The terminology and classification of gemstones (5.22), organic substances (5.34) and artificial products (5.3) are established with reference to commercial usage, in conformity with the classifications and practices of the international gemstone, organic substance, artificial product and jewellery trades. The terminology and classifications of gemstones, organic substances, and artificial products as set out herein shall be used by all traders participating as members of CIBJO member organizations within all member nations.

NOTE – Exceptions may be made if the Law of a particular member nation conflicts with the clauses herein

## 2. Normative references

**The Diamond Book**, CIBJO, International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones), the World Jewellery Confederation, Piazzale Carlo Magno,1, 20149 Milano, Italy. [cibjo@cibjo.org](mailto:cibjo@cibjo.org)

**The Pearl Book**, CIBJO (International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones), the World Jewellery Confederation, Piazzale Carlo Magno,1, 20149 Milano, Italy. [cibjo@cibjo.org](mailto:cibjo@cibjo.org)

## 3. Classification of materials

The jewellery industry and trade recognize two categories of material: natural materials (5.31) and artificial products (5.3).

## 4. Normative Clauses

### 4.1. Natural materials

Materials which have been formed completely by nature without human interference and subsequently modified only by means of cutting and polishing and those processes mentioned in clauses 4.1.3.1 and 4.1.3.2.

#### 4.1.1. Precious stones, Gemstones and Ornamental stones

Natural inorganic materials with the exceptions of metals used in jewellery or objets d'art. (See 5.22 and 5.37)

#### 4.1.2. Organic substances

Natural materials (5.31) of animal or plant origin used in jewellery or *objets d'art* (5.32).

#### 4.1.3. Modified gemstones

Precious stones (5.37), gemstones (5.22), ornamental stones (5.35) and organic substances (5.34) are often modified (5.30) by various processes, before and/or after cutting, to improve their colour or clarity.

There are two categories of modified gemstones and organic substances: Gemstones and organic substances requiring general information of their modifications (4.1.3.1), and: gemstones and organic substances requiring specific information of their modifications (4.1.3.2).

#### **4.1.3.1. Gemstones and organic substances requiring general information on their modifications**

Gemstones and organic substances requiring general information on their modifications include those listed in clauses 4.1.3.1.1 to 4.1.3.1.4 only.

##### **4.1.3.1.1. Colourless substance present in fissures**

Gemstones (5.22) and organic substances (5.34) modified by the presence within fissures (5.18) of a colourless agent such as oil, wax, resin, polymer or any colourless substances other than glass.

##### **4.1.3.1.2. Surface waxing**

Gemstones (5.22) and organic substances (5.34) modified superficially with a colourless agent such as oil, wax, organic fluid or polymer.

##### **4.1.3.1.3. Heating.**

Gemstones (5.22) and organic substances (5.34) permanently modified by heating (5.24).

NOTE – A gemstone and organic substances may still be classified in this category when residues from the heating process are present within healed fissures. However, when healed fissures are polished flush with the surface of the stone, the residues should not be visible by having a different polished surface lustre to the host material, when viewed at 10 power magnification by a trained observer.

##### **4.1.3.1.4. Bleaching**

Gemstones (5.22) and organic substances (5.34) modified by bleaching (5.6).

#### **4.1.3.2. Gemstones and organic substances requiring specific information on their modifications**

Gemstones and organic substances requiring specific information of their modifications are all those not covered in clauses 4.1.3.1.1 to 4.1.3.1.4. Clauses 4.1.3.2.1 to 4.1.3.2.6 list those modifications, presently known, that require specific information:

##### **4.1.3.2.1. Artificial Irradiation**

Gemstones (5.22) and organic substances (5.34) with a colour altered by artificial irradiation (5.2).

##### **4.1.3.2.2. Diffusion treatment**

Gemstones (5.22) and organic substances (5.34) with a colour altered by, and/or an optical phenomenon created by, diffusion treatment of chemical elements, with the exception of hydrogen and oxygen, from an external source (5.14).

##### **4.1.3.2.3. Dyes or other colouring agents**

Gemstones (5.22) and organic substances (5.34) with a colour altered by dyes (5.16) or other colouring agents, or stones darkened by the "sugar/acid" process.

##### **4.1.3.2.4. Filled fractures or cavities**

Gemstones (5.22) and organic substances (5.34) modified by the filling (5.17) of open fractures (5.21) or cavities (5.8).

NOTE – When filled fractures and cavities are polished flush with the surface of the stone, the filler will be found to have a different polished surface lustre to the host material, when viewed at 10 power magnifications by a trained observer.

##### **4.1.3.2.5. Impregnation**

Gemstones (5.22) and organic substances (5.34) modified by impregnation (5.26) with plastic or similar substances.



NOTE – Clause 4.1.3.2.5 does not include the bonding of powdered materials. These are artificial products.

#### **4.1.3.2.6. Coating**

Gemstones (5.22) and organic substances (5.34) modified by coating (5.10).

## **4.2. Artificial products**

Products which are partially or completely made by man.

### **4.2.1. Reconstructed stones**

Artificial products (5.3) manufactured by melting (without subsequent crystallization), fusing natural materials to form a coherent whole.

### **4.2.2. Composite stones**

Artificial products (5.3) composed of two or more, previously separate, parts or layers assembled by bonding or other artificial methods. Their components may be natural and/or artificial.

### **4.2.3. Synthetic stones**

Artificial products (5.3) having essentially the same chemical composition, physical properties and structure as that of their naturally occurring counterparts.

### **4.2.4. Artificial stones**

Artificial crystalline products with no known natural counterparts.

### **4.2.5. Imitations**

Artificial products (5.3) that imitate the appearance of precious stones (5.37), gemstones (5.22), ornamental stones (5.35) or organic substances (5.34) without having their chemical composition and/or their physical properties and/or their structure.

## **4.3. General nomenclature – all materials**

### **4.3.1. Descriptions**

Precious stones(5.37), gemstones(5.22), ornamental stones(5.35), organic substances (5.34), reconstructed stones (5.39), composite stones (5.12), synthetic stones (5.44), artificial stones and imitations shall be named and described in accordance with the terminology and classifications set out in all the clauses herein and Annexe A. This applies to the descriptions in all publications and communications addressed to the public as well as to all commercial documents (e.g., advertisements, offers, labels, memos, delivery notes and invoices) and to appraisals, identification reports, certificates, etc.

### **4.3.2. Names of cuts**

The name of the cut shall only be used in conjunction with the correct name of the material from which it is fashioned.

Examples - « brilliant-cut sapphire », « rose-cut amber », « marquise-shape treated topaz », « baguette-shape YAG (artificial product) », « emerald-cut synthetic ruby », « pear-shape garnet / glass doublet », « cabochon-cut reconstructed amber », « shell cameo »

NOTE - A round brilliant-cut diamond may be described as a "brilliant" without any additional description of the material. See diamond blue book.

### **4.3.3. Chatoyancy**

Stones displaying chatoyancy (5.9) shall be described by their correct name with the prefix/suffix "cat's-eye" or the prefix "chatoyant".

Examples - « Cat's-eye tourmaline », « Tourmaline cat's-eye », « Chatoyant tourmaline »

#### 4.3.4. Asterism

Stones displaying asterism (5.5) shall be described by their correct name with the prefix "star" or "asteriated" or the suffix "asteria".

Examples - « Synthetic star ruby », « Asteriated quartz », « Quartz asteria »

#### 4.3.5. The term “cultured”

The term "cultured" (5.13) or "cultivated" shall only be used for cultured pearls.

#### 4.3.6. The term “semi precious”

The term "semi precious" (5.40) is misleading and shall not be used.

#### 4.3.7. Weight

##### 4.3.7.1. Metric carat

The weight (5.48) of a stone shall be expressed in metric carats (ct); one carat is equivalent to 200 mg (1/5 g). The weight of a stone shall be stated in carats to two decimal places.

##### 4.3.7.2. Rounding

Weight shall be rounded upwards if the third decimal is a 9, for example:

0,996 = 0,99 ct

0,998 = 0,99 ct

0,999 = 1,00 ct

NOTE - one-hundredth of a carat may be expressed as a “point”.

NOTE - It is unfair trade practice to misrepresent the weight of any stone or to deceive as to the weight of any stone. It is also an unfair trade practice to state or otherwise represent the weight of all stones contained in any article unless such weight figure is accompanied with equal emphasis and prominence by the words "total weight", or words of similar meaning, so as to indicate clearly that the weight so stated or represented is that of all stones in the article and not that of the centre or largest one.

#### 4.3.8. Measurements

The measurements of a stone shall be expressed in millimetres to two decimal places.

The following measurements shall apply;

- round shape: minimum diameter, maximum diameter and depth (total height);
- other shapes: length, width and depth (total height).

#### 4.4. Nomenclature - All natural materials

NOTE 1 - The adjectives "real" (5.38), "precious" (5.37), "genuine" (5.23) or "natural" (5.31) shall only be used to refer to or designate natural materials (whether modified or not).

NOTE 2 – It is unnecessary to note the genesis of a natural material, as the use of the correct name of the material alone and without qualification states that it is natural.

#### **4.4.1. Place of origin**

##### **4.4.1.1. Geographical areas**

Names of geographical areas shall only be used when they denote the areas from which the gemstone or organic substances originate geographically (place of origin).

##### **4.4.1.2. Origin opinion**

When places of origin for gemstones or organic substances are presented they shall be considered as a matter of opinion.

##### **4.4.1.3. Origin and quality**

Place of origin does not imply a level of quality.

##### **4.4.1.4. Processing centres and places of origin**

Names of cutting, processing or exporting centers shall not be used to imply geographical origin.

### **4.5. Nomenclature – Gemstones and Organic Substances**

#### **4.5.1. Description and commercial names**

Annex A lists the correct commercial names of the most common gemstones (5.22) and organic substances (5.34).

NOTE 1 - the mineralogical name of a stone may be used in place of its commercial name(s) (e.g. olivine instead of peridot).

NOTE 2 - the correct mineral name preceded or followed by a colour description may substitute for any variety or trade name.

NOTE 3 – The biological or geological names of organic substances may be used instead of the commercial names.

#### **4.5.2. Mineralogical names**

Stones which are not listed in Annex A shall be described by their mineralogical name (as recognized by the International Mineralogical Association) or geological name only.

#### **4.5.3. Biological names**

Organic substances (5.34) not specifically included within Annex A shall be described by their biological names.

#### **4.5.4. Chatoyancy and asterism**

Stones that display chatoyancy (5.9) or asterism (4.3.4) (whether listed in Annex A or not) shall be described according to clauses 4.3.3 or 4.3.4

#### **4.5.5. Approval of commercial names**

All commercial names not listed in Annex A (4.5.4), whether new or old, shall be submitted to CIBJO for approval and inclusion within this standard.

#### **4.5.6. Names of gemstones and organic substances used in direct conjunction with each other**

Apart from the combinations given in Annex A, do not use the names of gemstones (5.22) and organic substances (5.34) in direct conjunction with each other (for description of colour or otherwise) in such a fashion, that the identity of the material is not apparent.

Examples of name combinations that shall not be used are: « alexandrite sapphire », « topaz quartz », « citrine topaz », « topaz citrine ».

#### **4.6. Nomenclature - Gemstones and organic substances requiring general information on their modifications**

##### **4.6.1. Description**

Gemstones (5.22) and organic substances (5.34) requiring general information on their modifications (4.1.3.1.1 to 4.1.3.1.4) shall be named in the same way as their unmodified counterparts (Annex A).

Commercial documents accompanying and describing a gemstone or organic substance requiring general information on its modification shall include a comment on this modification. Such comments shall be given to customers.

Examples of statements that shall be included in commercial documents are:

«"Gemstones are often heated, before and/or after cutting, to improve their colour or clarity"».

«"Gemstones are often modified, before and/or after cutting, with colourless substances to improve their clarity"».

#### **4.7. Nomenclature – Gemstones and organic substances requiring specific information of their modifications**

##### **4.7.1. Description**

A gemstone (5.22) or organic substance (5.34) requiring specific information of its modification (4.1.3.2.1 to 4.1.3.2.6) shall be described by the correct name of its unmodified counterpart immediately preceded by the word "treated" (except as in the note below) which shall appear, in the event of a written presentation, with equal emphasis and prominence, with characters of the same size and colour as those of the name itself. Do not abbreviate. Do not place an asterisk next to the name of a gemstone or an organic material, making reference to a footnote explanation of the fact that the stone is treated.

NOTE - As an alternative to clause 4.7.1 the word "treated" may be replaced by the following terms (where these terms apply is indicated by the relevant clause(s) in parenthesis and following the term) providing that the application of these terms adhere to the requirements regarding the term "treated" in clause 4.7.1.

"Irradiated" (4.1.3.2.1), "Artificially coloured" (4.1.3.2.1 to 4.1.3.2.3), "Diffusion treated" (4.1.3.2.2), "Fracture filled" or "Glass filled" (4.1.3.2.4), "Impregnated" (4.1.3.2.5), "Coated" (4.1.3.2.6).

##### **4.7.2. Display**

When materials described in clauses 4.1.3.2 and 4.7 or merchandise containing these materials are displayed (whether alone or mixed with other natural materials, in a single piece of merchandise or otherwise), easily noticeable and legible labels, adjoining these loose stones or pieces of merchandise, shall clearly indicate the precise nature of the objects being shown in accordance with the clauses herein.

#### **4.8. Nomenclature – All artificial products**

##### **4.8.1. Artificial products used as imitations**

Any artificial product may in certain situations comply with the classification and definition of an imitation (4.2.5 and 5.25). When this occurs the product may be described in accordance with clause 4.13.

##### **4.8.2. Display**

When artificial products or merchandise containing artificial products are displayed (whether alone or mixed with natural materials, in a single piece of merchandise or otherwise), easily noticeable and legible labels, adjoining these loose stones or pieces of merchandise, shall clearly indicate the precise nature of the objects being shown in accordance with the clauses herein.

### 4.8.3. Names of geographic area

Names of geographical areas producing gemstones or organic substances and names of cutting or exporting centres shall not be used when referring to artificial products.

### 4.8.4. The adjectives "real", "precious", "genuine", "natural", etc.

Do not use the adjectives "real" (5.38), "precious" (5.37), "genuine" (5.23), "natural" (5.31) or any word or phrase of a similar meaning including "precious stone", "gemstone" or "ornamental stone" in descriptions of artificial products.

### 4.8.5. Names of natural materials

Do not use the name of any natural material in direct conjunction with the name of an artificial product (for description of colour or otherwise) in such a fashion, that the identity of the stone is not apparent.

Examples: (correct) - « aquamarine coloured synthetic spinel »

(not correct) - « emerald glass »

## 4.9. Nomenclature - Reconstructed stones

### 4.9.1. Description

A reconstructed stone (5.39) shall be called by the correct name of its naturally occurring counterpart immediately preceded by the word "reconstructed" (except as in clause 4.8.1), which shall appear, in the event of a written presentation, with equal emphasis and prominence, with characters of the same size and colour as those of the name itself. Do not abbreviate. Do not place an asterisk next to the name of a gemstone or an organic material, making reference to a footnote explanation of the fact that the product is reconstructed.

Example: «Reconstructed amber »

### 4.9.2. Terms other than "reconstructed"

Do not use a qualifying term other than "reconstructed" to describe any reconstructed stone except as allowed for in clause 4.8.1.

## 4.10. Nomenclature - Composite stones

### 4.10.1. Description

Composite stones (5.12) shall (except as in clause 4.8.1) be described by the words "doublet" (two parts) or "triplet" (three parts) or "composite" (more than three parts - see also clause 4.10.4 below), and these words shall be immediately preceded or followed by the correct names of the components of the assembled product (except as in clauses 4.10.2 and 4.10.3), the names of which shall be mentioned from the upper part downwards and be separated by a slash (/). However, if all parts of a composite (excluding the bonding agent) are the same material, the name of this material shall be stated *only* once. The words "doublet" (5.15) or "triplet" (5.46) or "composite" (5.12) shall appear, in the event of a written presentation, with equal emphasis and prominence, with characters of the same size and colour as those of the names of the components. Do not abbreviate. Do not place an asterisk next to any name or combination of names, making reference to a footnote explanation of the fact that the product is a composite stone.

Examples: A doublet whose upper portion is a garnet and whose lower portion is glass shall be called a « garnet/glass doublet » or « doublet garnet/glass ».

A composite stone composed of two parts of colourless synthetic spinel bonded together (by a coloured layer or otherwise) shall be called a "synthetic spinel doublet" or "doublet synthetic spinel".

#### **4.10.2. Opal doublet**

A composition of two pieces where a slice of natural opal is bonded to a base material shall be called an "opal doublet" or "doublet opal".

#### **4.10.3. Opal triplet**

A composition of three pieces where a thin slice of natural opal is bonded to a dark base and provided with a transparent top layer, usually domed and usually consisting of quartz or glass, shall be called an "opal triplet" or "triplet opal".

#### **4.10.4. Opal mosaic**

The word "composite" shall be replaced by the word "mosaic", when the various parts of the composite are placed side by side (to create a picture or pattern or otherwise) providing that the application of this term adheres to the requirements regarding the term "composite" in clause 4.10.1.

#### **4.10.5. Terms other than those specified in clause 4.10**

Do not refer to any composite stone in any way other than that specified in clause 4.10 (except as in clause 4.8.1).

### **4.11. Nomenclature - Synthetic stones**

#### **4.11.1. Description**

A synthetic stone (5.44) shall be described (except as in clause 4.8.1) by the correct name of its naturally occurring counterpart immediately preceded by the word "synthetic", which shall appear, in the event of a written presentation, with equal emphasis and prominence, with characters of the same size and colour as those of the name itself. Do not abbreviate. Do not place an asterisk next to the name of a gemstone, making reference to a footnote explanation of the fact that the product is synthetic.

Example: « synthetic emerald »

#### **4.11.2. Terms other than "synthetic"**

Do not use a qualifying term other than "synthetic" to describe any synthetic stone except as allowed for in clause 4.8.1.

#### **4.11.3. Brand or manufacturers names**

When using a brand name or the manufacturer's name these shall be added to the name of the stone (5.42) in one of the following manners:

Examples: - « synthetic emerald by (name) », « (name) synthetic emerald ».

### **4.12. Nomenclature - Artificial stones**

#### **4.12.1. Description**

The name of an artificial stone shall be used in conjunction with the term "artificial product" (5.3) or "artificial stone" (5.4) (except as in clause 4.8.1) which must appear, in the event of a written presentation, with equal emphasis and prominence, with characters of the same size and colour as those of the name itself. Do not abbreviate. Do not place an asterisk next to the name of an artificial stone, making reference to a footnote explanation of the fact that the product is artificial.

#### **4.12.2. Name similarities**

The name of an artificial stone shall not show a similarity to the name, or sound of the name (neither entirely, nor abbreviated, nor by way of an allusion), of any natural material nor be an established name for another artificial stone.

Correct examples:

for artificial yttrium aluminate, « YAG - artificial product », or « - YAG - artificial stone »

for artificial lithium niobate, « Linobate - artificial product » or « Linobate - artificial stone ».

Incorrect examples:

do not use « Diamantine », « Diamlite », « Diamonair », « Smaryll », « Emeraldolite » etc.

#### **4.12.3. Terms other than "artificial product" or "artificial stone"**

Do not use a qualifying term other than "artificial product" (5.3) or "artificial stone" (5.4) to describe any artificial stone except as allowed for in clause 4.8.1

### **4.13. Nomenclature – Imitations**

#### **4.13.1. Description**

An imitation (5.25) shall be described by the correct name of the material of which it is composed, in accordance with the clauses and annexes herein, or it shall be described by the name of the natural material it imitates, immediately preceded by the word "imitation", which shall appear, in the event of a written presentation, with equal emphasis and prominence, with characters of the same size and colour as those of the name itself: Do not abbreviate. Do not place an asterisk next to the name of a gemstone or an organic material, making reference to a footnote explanation of the fact that the product is an imitation.

Correct examples: « glass », « plastic », « ceramic », etc. or « imitation emerald », « imitation coral » etc.

#### **4.13.2. Terms other than those specified in clause 4.13**

Do not refer to any imitation in any way other than that allowed for in clause 4.13.

## **5. Terms and Definitions**

For the purposes of this CIBJO Standard, the following terms and definitions shall apply

### **5.1. Adularescence**

an optical phenomenon a gem material exhibits when it displays a floating, billowy, white or bluish light effect in certain directions as the gemstone is turned.

### **5.2. Artificial irradiation**

exposing stones to any form of irradiation controlled wholly or partially by man.

### **5.3. Artificial products**

products which are partially or completely made by man.

#### **5.4. Artificial stones**

artificial crystalline products with no known natural counterparts.

#### **5.5. Asterism**

stones cut as cabochons that show two or more distinct and shimmering lines that intersect each other, while crossing the surface of the cabochon and are related to reflection effects from inclusions within the stone, are known as star stones. They exhibit asterism and are asteriated (as-te-ri-at-ed adjective). A stone exhibiting asterism is sometimes referred to as a “phenomenal” stone.

#### **5.6. Bleaching**

to remove or to lighten the colour by means of chemical or physical agents or light.

#### **5.7. Bonding**

the union or cohesion brought about by the use of a substance or an agent that causes two or more objects or parts to cohere.

#### **5.8. Cavity**

a hollow or pitted area (a hole) within a stone reaching the surface. See also: Fracture (5.21) and Fissure (5.18).

#### **5.9. Chatoyancy**

stones cut as cabochons that show a single distinct and shimmering line crossing the surface of the cabochon and is related to reflection effects from inclusions within the stone, are known as cat’s-eyes. They exhibit chatoyancy and are chatoyant (cha-toy-ant adjective). A stone exhibiting chatoyancy is sometimes referred to as a “phenomenal” stone.

#### **5.10. Coating**

a layer of a substance spread over the surface, or part of the surface, of a stone for protection, colouration or decoration; a covering layer.

#### **5.11. Colour change**

the property of gem materials that change from one apparent colour to another apparent colour when moving between different sources of light such as daylight equivalent (D65 or Illuminant C) and incandescent equivalent light (Illuminant A).

#### **5.12. Composite stones**

artificial products (5.3) composed of two or more, previously separate, parts or layers assembled by bonding or other artificial methods. Their components may be natural and/or artificial.

#### **5.13. Cultured**

the term ‘cultured’ is only applied to ‘cultured pearls’ and no other material. Cultured pearls are nacreous formations secreted in the interior of the productive molluscs. The outer layers of cultured pearls are composed of concentric layers of organic substance (of scleroprotein name conchiolin) and of calcium carbonate (usually in the form of aragonite). The secretion of nacreous layers is caused by the metabolism of living molluscs themselves; human intervention only started the secretion. This applies to all cultured pearls whether with a solid nucleus and/or an organic implant.



#### **5.14. Diffusion**

the diffusion of colour-causing or phenomenon-causing elements into a stone.

#### **5.15. Doublet**

a composite stone consisting of two parts.

#### **5.16. Dyeing**

any colour caused artificially by the application of a dye or stain to gem materials.

#### **5.17. Filling**

to occupy the whole or part of a cavity (5.8), fissure (5.18) or fracture (5.21); to pervade; to spread throughout; to occupy completely; make full.

#### **5.18. Fissure**

a very narrow opening; a fine fracture (5.21).

#### **5.19. Fluid**

a substance of low enough viscosity that it will flow easily.

#### **5.20. Foiling**

the application of a thin leaf of metal burnished and afterwards coated with transparent colors.

#### **5.21. Fracture**

an opening; a crack

#### **5.22. Gemstones**

natural inorganic materials, with the exceptions of metals, used in jewellery or *objets d'art* (5.32). For the purposes of this standard all clauses and examples referring to gemstones apply also to precious stones and ornamental stones.

#### **5.23. Genuine**

actually possessing the alleged or apparent attribute or character.

#### **5.24. Heating**

modifying a stone by a thermal process, e.g. in a furnace, kiln or other heating apparatus.

#### **5.25. Imitations**

artificial products (5.3) that imitate the appearance of precious stones, gemstones, ornamental stones or organic substances without having their chemical composition and/or their physical properties and/or their structure.

#### **5.26. Impregnation**

to fill throughout; saturate.

### **5.27. Impregnated**

see Impregnation.

### **5.28. Irradiated**

exposed to or treated with radiation.

### **5.29. Labradorescence**

an optical phenomenon which produces flashes of pure spectral colours that gradually changes as the gemstone is moved about in reflected light, caused by diffraction of light at alternating layers of exsolution lamellae of regular size.

### **5.30. Modified gemstones and organic substances**

gemstones (5.22) or organic substances (5.34) changed in form or character by means of other than cutting and polishing, (4.1.3).

### **5.31. Natural materials**

materials which have been formed completely by nature without human interference and subsequently modified only by means of cutting and polishing and those processes mentioned in clause 4.1.3.

### **5.32. Objets d'art**

an object considered to be of artistic worth.

### **5.33. Opalescence**

the milky or pearly appearance of some gemstones, (especially some common opals).

### **5.34. Organic substances**

natural products of animal or plant origin used in jewellery or *objets d'art* (5.32).

### **5.35. Ornamental stones**

natural inorganic and organic substances, with the exceptions of metals, used in jewellery or *objets d'art* (5.32). For the purposes of this standard all clauses and examples referring to gemstones apply also to ornamental stones.

### **5.36. Phenomenal stones**

stones exhibiting asterism (5.5), chatoyancy (5.9), colour change (5.11), etc.

### **5.37. Precious stones**

natural inorganic materials, with the exceptions of metals, used in jewellery or *objets d'art* (5.32). For the purposes of this standard all clauses and examples referring to gemstones (5.22) apply also to precious stones.

### **5.38. Real**

genuine 5.23; not artificial (5.3, 5.4.)

### **5.39. Reconstructed stones**

artificial products (5.3) manufactured by melting (without subsequent crystallization) or fusing natural materials to form a coherent whole.

#### **5.40. Semi precious**

previously regarded as not a rare stone. Now it is a misleading term.

#### **5.41. Stability**

a measure of the ability of gemstones (5.22) and organic substances (5.34) to maintain their appearance.

#### **5.42. Stones**

natural materials and artificial products used in jewellery or *objets d'art* (5.32), with the exception of metals.

#### **5.43. Surface diffusion**

applying a combination of high temperature and chemicals to cause the diffusion of colour-causing or phenomenon-causing elements into a stone at or close to its surface.

#### **5.44. Synthetic stones**

artificial products having essentially the same chemical composition, physical properties and structure as that of their naturally occurring counterparts.

#### **5.45. Treated**

the prefix 'treated' is added to the name of gemstones (5.22) or organic substances (5.34) whose appearance has been altered in a manner that requires specific information, sometimes also preceded or replaced by a description of the technique used. The declaration of such modifications is detailed in clause 4.7.

#### **5.46. Triplet**

a composite stone (5.12) consisting of three parts.

#### **5.47. Void**

a cavity (5.8) that contains no matter.

#### **5.48. Weight**

mass of a gemstone (5.22), stone (5.42) or organic substances (5.34)

**Annex A**  
(normative)

**Commercial Names**

**GEMSTONES and ORGANIC SUBSTANCES**

The footnotes below apply to the following pages in Annex A:

- 1 At the time of this Standards publication.
- 2 Optional column: best reference in another language may be used if appropriate, used here is: *Webster, R. Gems, their Sources, Descriptions & Identification, 5<sup>th</sup> ed. Butterworths.*
- 3 None: Unknown: Rarely: Uncommon: Occasionally: Common: Usually: Always.
- 4 Stable: Unstable: Variable.

| Nomenclature |                |                 | Best trade reference (Gems, their Sources, Descriptions & Identification) | Modifications   |   |  | Care advice (see Annex B) | Available as a synthetic |
|--------------|----------------|-----------------|---|---|---|--|---------------------------|--------------------------|
| Material     | Variety / type | Commercial name |   | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1,3</sup> ) | Stability Variable, Stable, or Unstable | Requires General Information or Specific Information (see clause 4.6 or 4.7) |                           |                          |
|              |                |                 |   |   |   |  |                           |                          |

| Material             | Variety / type  | Commercial name            | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B) | Available as a synthetic |
|----------------------|---|----------------------------|--|--|---|---|------------------------------|--------------------------|
| Actinolite-Tremolite | Actinolite  | Actinolite                 | Page 309   | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |
|                      | Actinolite  | Actinolite                 | Page 309   | Dyed<br>(rarely)   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.2, B.2.10 & B.2.11  | No                       |
|                      | Nephrite  | Nephrite, or Nephrite-jade | Page 309   | None   | N/A   | N/A   | B.1                          | No                       |
|                      | Nephrite  | Nephrite, or Nephrite-jade | Page 309   | Dyed<br>(rarely)   | unstable  | SPECIFIC INFORMATION  | B.1, B.10 & B.2.11           | No                       |
|                      | Nephrite  | Nephrite, or Nephrite-jade | Page 309   | Impregnated with colourless oil, wax and resin   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.10 & B.2.11         | No                       |
|                      | Nephrite Cat's eye  | Nephrite Cat's eye         |  | None   | N/A   | N/A   | B.1                          | No                       |
|                      | Tremolite   | Tremolite                  | Page 380   | None   | N/A   | N/A   | B.1                          | No                       |
|                      | (with red to violet colour due to manganese)<br><br>(with green colour due to chromium) | Hexagonite                 | Page 380   | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |

| Material                  | Variety / type                       | Commercial name | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)              | Available as a synthetic |
|---------------------------|--------------------------------------|-----------------|--|--|---|---|---|--------------------------|
| Albite                    |                                      | See Feldspar    | ---  | ---  | ---   | ---   | ---                                       | ---                      |
| Almandine                 |                                      | See Garnet      | ---  | ---  | ---   | ---   | ---                                       | ---                      |
| Amber                     |                                      | Amber           | Page 570-7   | None   | N/A   | N/A   | B.1, B.2.1, B.2.2, B.2.9, B.2.10 & B.2.13 | No                       |
|                           |                                      | Amber           | Page 570-7   | Heat<br>(usually)  | stable  | GENERAL INFORMATION   | B.1, B.2.1, B.2.2, B.2.9, B.2.10 & B.2.13 | No                       |
|                           |                                      | Amber           | Page 570-7   | Dyed or surface treated to add colour<br><br>(rarely)                                    | unstable  | SPECIFIC INFORMATION  | B.1, B.2.1, B.2.2, B.2.9, B.2.10 & B.2.13 | No                       |
| Amblygonite-Montebbrasite | Amblygonite                          | Amblygonite     | Page 312   | None   | N/A   | N/A   | B.1, B.2.5 & B.2.10                       | No                       |
|                           | Montebbrasite                        | Montebbrasite   | Page 312   | None   | N/A   | N/A   | B.1, B.2.5 & B.2.10                       | No                       |
| Ammonite                  |                                      | Ammonite        | Page 299-300   | ---  | ---   | ---   | ---                                       | ---                      |
|                           | Ammonite Shell<br>(with iridescence) | Ammolite        | Page 299   | None   | N/A   | N/A   | B.1, B.2.1, B.2.2, B.2.8, & B.2.10        | No                       |

| Material              | Variety / type                       | Commercial name      | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)                      | Available as a synthetic |
|-----------------------|--------------------------------------|----------------------|--|--|---|---|---|--------------------------|
| Ammonite...<br>cont   | Ammonite Shell<br>(with iridescence) | Ammolite             | Page 299   | Impregnated with colourless hardened substances (commonly)                               | unstable  | SPECIFIC INFORMATION  | B.1, B.2.1, B.2.2, B.2.8, B.2.10, B.2.11 & B.2.14 | No                       |
| Andalusite            |                                      | Andalusite           | Page 313   | None   | N/A   | N/A   | B.1   | No                       |
|                       | Chiastolite                          | Chiastolite          | Page 314   | None   | N/A   | N/A   | B.1   | No                       |
| Andradite             |                                      | See Garnet           | ---  | ---  | ---   | ---   | ---   | ---                      |
| Anthophyllite-Gedrite | Nuummite                             | Nuummite             | Page 355   | None   | N/A   | N/A   | B.1 & B.2.1                                       | No                       |
| Antigorite            |                                      | See Serpentine       | ---  | ---  | ---   | ---   | ---   | ---                      |
| Apatite               |                                      | Apatite              | Page 315   | None   | N/A   | N/A   | B.1, B.2.1 & B.2.10                               | No                       |
| Aragonite             |                                      | Aragonite            | Page 308   | None   | N/A   | N/A   | B.1, B.2.1, B.2.8 & B.2.10                        | No                       |
|                       | Fibrous aragonite                    | Aragonite Satin Spar | Page 308   | None   | N/A   | N/A   | B.1, B.2.1, B.2.8 & B.2.10                        | No                       |
| Axinite               |                                      | Axinite              | Page 317   | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10                               | No                       |

| Material  | Variety / type                                      | Commercial name        | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable,</u><br><u>Stable,</u> or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)                           | Available as a synthetic |
|-----------|---|------------------------|--|--|---|---|--|--------------------------|
| Azurite   |   | Azurite, or Chessylite | Page 318   | None   | N/A   | N/A   | B.1, B.2.1, B.2.2, B.2.8 & B.2.10                      | No                       |
|           |   | Azurite, or Chessylite | Page 318   | Surface colourless waxing<br><br>(Commonly)  | unstable  | GENERAL INFORMATION   | B.1, B.2.1, B.2.2, B.2.8, B.2.10 & B.2.11              | No                       |
|           |   | Azurite, or Chessylite | Page 318   | Impregnated with colourless oil, wax or resin<br><br>(Rarely)                            | unstable  | SPECIFIC INFORMATION  | B.1, B.2.1, B.2.2, B.2.8, B.2.10 & B.2.11              | No                       |
|           | Azurite-Malachite                                   | Azurite-Malachite      | Page 351   | None   | N/A   | N/A   | B.1 B.2.1 & B.2.8                                      | No                       |
|           | Azurite-Malachite                                   | Azurite-Malachite      | Page 351   | Surface-waxing<br><br>(Commonly)   | unstable  | GENERAL INFORMATION   | B.1, B.2.1, B.2.8, & B.2.11                            | No                       |
|           | Azurite-Malachite                                   | Azurite-Malachite      | Page 351   | Impregnated with colourless plastic or hardened resin<br><br>(Rarely)                    | unstable  | SPECIFIC INFORMATION  | B.1, B.2.1, B.2.8, & B.2.11                            | No                       |
| Benitoite |   | Benitoite              | Page 320   | None   | N/A   | N/A   | B.1 & B.2.10   | No                       |
| Beryl     | Emerald (green colour due to chromium +/- vanadium) | Emerald                | Page 104   | None<br><br>(Very rarely)  | N/A   | N/A   | B.1, If there are fissures or fractures B.2.2 & B.2.10 | Many                     |



| Material     | Variety / type                                      | Commercial name                            | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1,3</sup> ) | Stability<br><u>Variable,</u><br><u>Stable,</u> or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B) | Available as a synthetic |
|--------------|---|--|--|---|---|---|------------------------------|--------------------------|
|              | Emerald (green colour due to chromium +/- vanadium) | Emerald                                    | Page 104   | colourless oils, wax and resins in fissures (usually)                                   | unstable  | GENERAL INFORMATION   | B.1, B.2.2, B.2.10 & B.2.11  | No                       |
|              | Emerald (green colour due to chromium +/- vanadium) | Emerald                                    | Page 104   | Dyed with the use of coloured oils (occasionally)                                       | unstable  | SPECIFIC INFORMATION  | B.1, B.2.2, B.2.10 & B.2.11  | No                       |
|              | Emerald (green colour due to chromium +/- vanadium) | Emerald                                    | Page 104   | Open fractures or cavities filled with hardened resins (commonly)                       | unstable  | SPECIFIC INFORMATION  | B.1, B.2.2, B.2.10 & B.2.12  | No                       |
|              | Aquamarine  | Aquamarine                                 | Page 124   | None<br><br>(Rarely)  | N/A   | N/A   | B.1                          | Some                     |
|              | Aquamarine  | Aquamarine                                 | Page 124   | Heated (usually)  | stable  | GENERAL INFORMATION   | B.1                          | Some                     |
|              | Goshenite   | Goshenite, or Colourless Beryl             | Page 103   | None  | N/A   | N/A   | B.1                          | No                       |
|              | Heliodor  | Heliodor, or yellow Beryl, or Golden Beryl | Page 128   | None  | N/A   | N/A   | B.1                          | Few                      |
|              | Heliodor  | Heliodor, or yellow Beryl, or Golden Beryl | Page 128   | Irradiated (usually)  | variable  | SPECIFIC INFORMATION  | B.1 & B.2.6                  | Few                      |
| Beryl...cont | Morganite   | Morganite, or Pink Beryl                   | Page 128   | None  | N/A   | N/A   | B.1                          | Few                      |
|              | Morganite   | Morganite, or Pink Beryl                   | Page 128   | Heated (commonly)   | stable  | GENERAL INFORMATION   | B.1                          | Few                      |

| Material       | Variety / type           | Commercial name  | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification<br>type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires<br><u>General Information</u> or<br><u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)              | Available as a synthetic |
|----------------|--------------------------|--|--|---|---|---|---|--------------------------|
|                | Blue Beryl (Maxixe)      | Blue Beryl (Maxixe)  | Page 127   | None  | unstable  | N/A   | B.1 & B.2.7                               | No                       |
|                | Blue Beryl (Maxixe-type) | Blue Beryl (Maxixe-type)                                     | Page 127   | Blue (Maxixe type) irradiated (always)  | unstable  | SPECIFIC INFORMATION  | B.1 & B.2.7                               | No                       |
|                | (other colours)          | Beryl with colour prefixes e.g., Green Beryl, Red Beryl etc. | page 103   | None  | N/A   | N/A   | B.1                                       | Few                      |
| Beryllonite    |                          | Beryllonite  | Page 321   | None  | N/A   | N/A   | B.1, B.2.2, & B.2.10                      | No                       |
| Brazilianite   |                          | Brazilianite   | Page 321   | None  | N/A   | N/A   | B.1, B.2.2, & B.2.10                      | No                       |
| Calcite        |                          | Calcite  | Page 307   | None  | N/A   | N/A   | B.1, B.2.1, B.2.2, B.2.8 & B.2.10         | No                       |
|                | Fibrous Calcite          | Calcite Satin Spar   | Page 307   | None  | N/A   | N/A   | B.1, B.2.1, B.2.2, B.2.3, B.2.8 & B.2.10  | No                       |
|                | Massive Calcite          | Marble   | Page 307   | None  | N/A   | N/A   | B.1, B.2.1, B.2.3, B.2.8 & B.2.10         | No                       |
| Calcite...cont | Massive Calcite          | Marble   | Page 307   | Surface colourless waxing (commonly)  | unstable  | GENERAL INFORMATION   | B.1, B.2.1, B.2.3, B.2.8, B.2.10 & B.2.11 | No                       |

| Material            | Variety / type                                       | Commercial name                     | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable,</u><br><u>Stable,</u> or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)              | Available as a synthetic |
|---------------------|--|-------------------------------------|--|--|---|---|---|--------------------------|
|                     | Massive Calcite                                      | Marble                              | Page 307   | Dyed<br><br>(commonly)   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.1, B.2.3, B.2.8, B.2.10 & B.2.11 | No                       |
| Cassiterite         |  | Cassiterite                         | Page 323   | None   | N/A   | N/A   | B.1 & B.2.10                              | No                       |
| Cerussite           |  | Cerussite                           | Page 325   | None   | N/A   | N/A   | B.1, B.2.1, B.2.8 & B.2.10                | No                       |
| Charoite            |  | Charoite                            | Page 325   | None   | N/A   | N/A   | B.1 & B.2.10                              | No                       |
| Chessylite          |  | See Azurite                         | ---  | ---  | ---   | ---   | ---                                       | ---                      |
| Chrysoberyl         |  | Chrysoberyl                         | Page 132   | None   | N/A   | N/A   | B.1                                       | Some                     |
|                     | Chrysoberyl Cat's-eye, Cymophane                     | Chrysoberyl Cat's-eye, or Cat's-eye | Page 132   | None   | N/A   | N/A   | B.1                                       | Few                      |
|                     | Chrysoberyl Cat's-eye, Cymophane                     | Chrysoberyl Cat's-eye, or Cat's-eye | Page 132   | Irradiated to change colour (uncommon)   | stable  | SPECIFIC INFORMATION  | B.1, some may be radioactive              | Few                      |
| Chrysoberyl... cont | Alexandrite (definite colour change due to chromium) | Alexandrite                         | Page 132   | None   | N/A   | N/A   | B.1                                       | Many                     |

| Material         | Variety / type  | Commercial name       | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification<br>type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires<br><u>General Information</u> or<br><u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)              | Available as a synthetic |
|------------------|---|-----------------------|--|---|---|---|---|--------------------------|
|                  | Alexandrite<br>(definite colour change due to chromium) | Alexandrite           | Page 132   | colourless oils, wax and resins in fissures (rarely)  | unstable  | GENERAL INFORMATION   | B.1, B.2.2, B.2.10 & B.2.11               | No                       |
|                  | Alexandrite Cat's-eye                                   | Alexandrite Cat's-eye | Page 132   | None  | N/A   | N/A   | B.1                                       | Some                     |
| Chrysocolla      |   | Chrysocolla           | Page 326   | None  | N/A   | N/A   | B.1, B.2.1, B.2.2, B.2.3, & B.2.10        | No                       |
| Chrysocolla..... |   | Chrysocolla           | Page 326   | Surface colourless waxing (occasionally)  | unstable  | GENERAL INFORMATION   | B.1, B.2.1, B.2.2, B.2.3, B.2.10 & B.2.11 | No                       |
|                  |   | Chrysocolla           | Page 326   | Impregnation with colourless plastic or hardened resin (occasionally)                       | unstable  | SPECIFIC INFORMATION  | B.1, B.2.1, B.2.2, B.2.3, B.2.10 & B.2.11 | No                       |
| Chrysotile       |   | See Serpentine        | ---  | ---   | ---   | ---   | ---                                       | ---                      |
| Conch Pearl      |   | See the Pearl Book    | ---  | ---   | ---   | ---   | ---                                       | ---                      |
| Copal            |   | Copal                 | Page 574-5   | None  | N/A   | N/A   | B.1, B.2.1, B.2.9, B.2.10 & B.2.13        | No                       |
|                  |   | Copal                 | Page 574-5   | Heat (usually)  | stable  | GENERAL INFORMATION   | B.1, B.2.1, B.2.9, B.2.10 & B.2.13        | No                       |

| Material     | Variety / type | Commercial name | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1,3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)                     | Available as a synthetic |
|--------------|----------------|-----------------|--|---|---|---|--|--------------------------|
|              |                | Copal           | Page 574-5   | Dyed or surface treated to add colour<br><br>(rarely)                                   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.1, B.2.9, B.2.10 & B.2.13               | No                       |
| Coral        | White          | White Coral     | Page 559-564   | None  | N/A   | N/A   | B.1, B.2.1, B.2.3, B.2.8 & B.2.10                | No                       |
|              | White          | White Coral     | Page 559-564   | Bleached<br><br>(commonly)  | stable  | GENERAL INFORMATION   | B.1, B.2.1, B.2.3, B.2.8 & B.2.10                | No                       |
|              | White          | White Coral     | Page 559-564   | Impregnated with colourless plastic or hardened resins<br>(commonly)                    | unstable  | SPECIFIC INFORMATION  | B.1, B.2.1, B.2.3, B.2.8, B.2.10 & B.2.11        | No                       |
|              | Pink           | Pink Coral      | Page 559-564   | None  | N/A   | N/A   | B.1, B.2.1, B.2.3, B.2.8 & B.2.10                | No                       |
| Coral...cont | Pink           | Pink Coral      | Page 559-564   | Surface colourless waxing<br><br>(commonly)   | unstable  | GENERAL INFORMATION   | B.1, B.2.1, B.2.3, B.2.8, B.2.10 & B.2.11        | No                       |
|              | Pink           | Pink Coral      | Page 559-564   | Dyed<br><br>(commonly)  | unstable  | SPECIFIC INFORMATION  | B.1, B.2.1, B.2.3, B.2.6, B.2.8, B.2.10 & B.2.11 | No                       |

| Material   | Variety / type  | Commercial name          | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)              | Available as a synthetic |
|------------|-----------------|--------------------------|--|--|---|---|---|--------------------------|
|            | Pink            | Pink Coral               | Page 559-564   | Impregnated with colourless plastic or hardened resins (commonly)                        | unstable  | SPECIFIC INFORMATION  | B.1, B.2.1, B.2.3, B.2.8, B.2.10 & B.2.11 | No                       |
|            | Red             | Red Coral                | Page 559-564   | See pink coral   | See pink coral  | See pink coral  | See pink coral                            | See pink coral           |
|            | Golden          | Golden Coral             | Page 559-564   | None   | N/A   | N/A   | B.1, B.2.1, B.2.3, B.2.9 & B.2.10         | No                       |
|            | Golden          | Golden Coral             | Page 559-564   | Bleached from black coral (usually)  | stable  | GENERAL INFORMATION   | B.1, B.2.1, B.2.3, B.2.9 & B.2.10         | No                       |
|            | Black           | Black Coral              | Page 559-564   | None   | N/A   | N/A   | B.1, B.2.1, B.2.3, B.2.9 & B.2.10         | No                       |
|            | (other colours) | Coral with colour prefix | Page 559-564   | See pink coral   | See pink coral  | See pink coral  | See pink coral                            | See pink coral           |
| Cordierite |                 | Cordierite, or Iolite    | Page 345   | None   | N/A   | N/A   | B.1                                       | No                       |
| Corundum   | Ruby            | Ruby                     | Page 73-102  | None   | N/A   | N/A   | B.1                                       | Many                     |
|            | Ruby            | Ruby                     | Page 73-102  | Heated (usually)   | stable  | GENERAL INFORMATION   | B.1                                       | Occasion-ally            |
|            | Ruby            | Ruby                     | Page 73-102  | The healing of fissures (commonly)   | stable  | GENERAL INFORMATION   | B.1                                       | Occasion-ally            |

| Material        | Variety / type | Commercial name | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B) | Available as a synthetic |
|-----------------|----------------|-----------------|--|--|---|---|------------------------------|--------------------------|
|                 | Ruby           | Ruby            | Page 73-102  | Glass filled open fractures and cavities (occasionally)                                  | stable  | SPECIFIC INFORMATION  | B.2.12, B.2.8 & B.1          | Very unusual             |
|                 | Ruby           | Ruby            | Page 73-102  | Lead glass filled open fractures and cavities (occasionally)                             | unstable  | SPECIFIC INFORMATION  | B.2.12, B.2.8 & B.1          | No                       |
|                 | Ruby           | Ruby            | Page 73-102  | Dyed (occasionally)  | unstable  | SPECIFIC INFORMATION  | B.1, B.2.10 & B.2.11         | Very unusual             |
|                 | Ruby           | Ruby            | Page 73-102  | Introduction/diffusion of certain element(s) during the heating process (rarely)         | stable  | SPECIFIC INFORMATION  | B.1 & (B.2.13 Shallow)       | Very unusual             |
|                 | Ruby           | Ruby            |  | Colourless oil or resin in fissures (occasionally)                                       | unstable  | GENERAL INFORMATION   | B.1, B.2.2 B.2.10 & B.2.11   | No                       |
| Corundum...cont | Ruby           | Ruby            |  | Coloured oil in fissures (rarely)  | unstable  | SPECIFIC INFORMATION  | B.1, B.2.2 B.2.10 & B.2.11   | No                       |
|                 | Star Ruby      | Star Ruby       | Page 73-102  | None   | N/A   | N/A   | B.1                          | Many                     |
|                 | Star Ruby      | Star Ruby       | Page 73-102  | Heated (occasionally)  | stable  | GENERAL INFORMATION   | B.1                          | No                       |

| Material        | Variety / type                     | Commercial name | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable,</u><br><u>Stable,</u> or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B) | Available as a synthetic |
|-----------------|------------------------------------|-----------------|--|--|---|---|------------------------------|--------------------------|
| Corundum...cont | Star Ruby                          | Star Ruby       | Page 73-102  | Dyed<br><br>(rarely)   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.2, B.2.10 & B.2.11  | No                       |
|                 | Star Ruby                          | Star Ruby       | Page 73-102  | Colourless oil in fissures<br><br>(occasionally)   | unstable  | GENERAL INFORMATION   | B.1, B.2.2, B.2.10 & B.2.11  | No                       |
|                 | Star Ruby ( <i>with asterism</i> ) | Star Ruby       | Page 73-102  | Introduction/diffusion of certain element(s) during the heating process rarely           | stable  | SPECIFIC INFORMATION  | B.1 (B.2.13 Shallow) &       | No                       |
|                 | Sapphire ( <i>blue</i> )           | Sapphire        | Page 73-102  | None   | N/A   | N/A   | B.1                          | Many                     |
|                 | Sapphire ( <i>blue</i> )           | Sapphire        | Page 73-102  | Heated (usually)   | N/A   | GENERAL INFORMATION   | B.1                          | Some                     |
|                 | Sapphire ( <i>blue</i> )           | Sapphire        | Page 73-102  | Glass filled open fractures and cavities (rarely)  | stable  | SPECIFIC INFORMATION  | B.1, B.2.12 &                | No                       |
|                 | Sapphire ( <i>blue</i> )           | Sapphire        |  | Introduction/diffusion of certain element(s) during the heating process (rarely)         | stable  | SPECIFIC INFORMATION  | B.1 (B.2.13 Shallow) &       | Very unusual             |
|                 | Sapphire ( <i>blue</i> )           | Sapphire        |  | Colourless oil or resin in fissures<br><br>(occasionally)                                | Unstable  | GENERAL INFORMATION   | B.1, B.2.2, B.2.10 & B.2.11  | No                       |



| Material        | Variety / type                                    | Commercial name                       | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification<br>type (see clause 4.6 or 4.7) &<br>(frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires<br><u>General Information</u> or<br><u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B) | Available as a synthetic |
|-----------------|---|---------------------------------------|--|--|---|---|------------------------------|--------------------------|
|                 | Star Sapphire<br>(blue)                           | Star Sapphire                         | Page 73-102  | None   | N/A   | N/A   | B.1                          | Many                     |
|                 | Star Sapphire<br>(blue)                           | Star Sapphire                         | Page 73-102  | Introduction/diffusion of certain element(s) during the heating process (rarely)               | stable  | SPECIFIC INFORMATION  | B.1<br>(B.2.13 Shallow)      | &<br>Very unusual        |
|                 | Star sapphire<br>(other colours)                  | Star Sapphire with colour prefix      | Page 73-102  | None   | N/A   | N/A   | B.1                          | Some                     |
|                 | Star sapphire<br>(other colours)                  | Star Sapphire with colour prefix      | Page 73-102  | Heated (occasionally)  | stable  | GENERAL INFORMATION   | B.1                          | No                       |
|                 | Star sapphire<br>(other colours)                  | Star Sapphire with colour prefix      | Page 73-102  | Introduction/diffusion of certain element(s) during the heating process (rarely)               | stable  | SPECIFIC INFORMATION  | B.1<br>(B.2.13 Shallow)      | &<br>Very unusual        |
| Corundum...cont | Padparadscha<br>subtle mixture of pink and orange | Padparadscha, or Pink-Orange Sapphire | Page 73-102  | None   | N/A   | N/A   | B.1                          | Many                     |
|                 | Padparadscha<br>subtle mixture of pink and orange | Padparadscha, or Pink-Orange Sapphire | Page 73-102  | Heated (commonly)  | stable  | GENERAL INFORMATION   | B.1                          | Very unusual             |

| Material        | Variety / type  | Commercial name   | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable,</u><br><u>Stable,</u> or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B) | Available as a synthetic |
|-----------------|-----------------|---|--|--|---|---|------------------------------|--------------------------|
| Corundum...cont | Pink-Orange     | Pink-Orange Sapphire  |  | Introduction/diffusion of certain element(s) during the heating process (commonly)       | stable  | SPECIFIC INFORMATION  | B.1 (B.2.13 Shallow) &       | Very unusual             |
|                 | Orange          | Orange Sapphire   |  | Introduction/diffusion of certain element(s) during the heating process (usually)        | stable  | SPECIFIC INFORMATION  | B.1 (B.2.13 Shallow) &       | Very unusual             |
|                 | (other colours) | Sapphire with colour prefix, or Corundum with colour prefix | Page 73-102  | None   | stable (Some yellow are unstable)                                     | N/A   | B.1                          | Many                     |
|                 | (other colours) | Sapphire with colour prefix, or Corundum with colour prefix | Page 73-102  | Heated (occasionally)  | stable  | GENERAL INFORMATION   | B.1                          | Very unusual             |
|                 | (other colours) | Sapphire with colour prefix, or Corundum with colour prefix |  | Introduction/diffusion of certain element(s) during the heating process (rarely)         | stable  | SPECIFIC INFORMATION  | B.1 (B.2.13 Shallow) &       | Very unusual             |
|                 | (other colours) | Sapphire with colour prefix, or Corundum with colour prefix | Page 73-102  | Irradiation to produce yellow colour (rarely)  | unstable  | SPECIFIC INFORMATION  | B.1 & B.2.7                  | No                       |

| Material              | Variety / type  | Commercial name      | Best trade reference<br>( <i>Gems, their Sources, Descriptions &amp; Identification</i> ) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B) | Available as a synthetic |
|-----------------------|---|----------------------|---|--|---|---|------------------------------|--------------------------|
| Danburite             |   | Danburite            | Page 328  | None   | N/A   | N/A   | B.1 & B.2.10                 | No                       |
| Datolite              |   | Datolite             | Page 329  | None   | N/A   | N/A   | B.1 & B.2.10                 | No                       |
| Diamond               |   | See the Diamond Book | ---   | ---  | ---   | ---   | ---                          | ---                      |
| Diaspore              |   | Diaspore             | Page 329  | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |
| Diopside              |   | Diopside             | Page 330  | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |
|                       | Chrome Diopside<br>( <i>green color due to chromium</i> ) | Chrome Diopside      | Page 331  | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |
|                       | Violane ( <i>purple</i> )                                 | Violan, or Violane   | Page 331  | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |
| Diopside...cont       | Star Diopside   | Star Diopside        | Page 331  | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |
| Disthene              |   | See Kyanite          | ---   | ---  | ---   | ---   | ---                          | ---                      |
| Dumortierite          |   | Dumortierite         | Page 332  | None   | N/A   | N/A   | B.1                          | No                       |
| Enstatite-Hypersthene | Enstatite   | Enstatite            | Page 333  | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |
|                       | ( <i>with green colour due to chromium</i> )              | Chrome Enstatite     | Page 334  | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |
|                       | Bronzite  | Bronzite             | Page 322  | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |

| Material                 | Variety / type                          | Commercial name             | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable,</u><br><u>Stable,</u> or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B) | Available as a synthetic |
|--------------------------|---|-----------------------------|--|--|---|---|------------------------------|--------------------------|
| Enstatite-Hypersthene... | Hypersthene                             | Hypersthene                 | Page 348   | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |
| Epidote                  |   | Epidote                     | Page 335   | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |
| Euclase                  |   | Euclase                     | Page 336   | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |
| Feldspar (group)         |   |                             | ---  | ---  | ---   | ---   | ---                          | ---                      |
| Albite                   |   | Albite                      | Page 213   | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |
| Labradorite              |   | Labradorite                 | Page 216   | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |
|                          | Labradorite                             | Labradorite                 | Page 216   | Surface colourless waxing (occasionally)   | unstable  | GENERAL INFORMATION   | B.1, B.2.2, B.2.10 & B.2.11  | No                       |
| Labradorite... cont      | Labradorite <i>with labradorescence</i> | Labradorite, or Spectrolite | Page 216   | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |
|                          | Labradorite <i>with labradorescence</i> | Labradorite, or Spectrolite | Page 216   | Surface colourless waxing (occasionally)   | unstable  | GENERAL INFORMATION   | B.1, B.2.2, B.2.10 & B.2.11  | No                       |
|                          | Labradorite <i>with aventurescence</i>  | Labradorite Sunstone        | Page 216   | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |

| Material          | Variety / type                        | Commercial name                     | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B) | Available as a synthetic |
|-------------------|---------------------------------------|-------------------------------------|--|--|---|---|------------------------------|--------------------------|
| Microcline        | Amazonite                             | Amazonite                           | Page 211   | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |
|                   | Amazonite                             | Amazonite                           | Page 211   | colourless waxed or oiled (usually)  | unstable  | GENERAL INFORMATION   | B.1, B.2.2, B.2.10 & B.2.11  | No                       |
|                   | Amazonite                             | Amazonite                           | Page 211   | Impregnated-with colourless plastic or hardened resins (occasionally)                    | unstable  | SPECIFIC INFORMATION  | B.1, B.2.10 & B.2.11         | No                       |
| Oligoclase        |                                       | Oligoclase                          | Page 215   | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |
| Oligoclase...cont | Oligoclase <i>with aventurescence</i> | Sunstone, or aventurescent feldspar | Page 218   | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |
| Orthoclase        |                                       | Orthoclase                          | Page 208   | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |
| Othoclase...cont  | Orthoclase <i>transparent, yellow</i> | Yellow Orthoclase                   | Page 210   | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |
|                   | Adularia                              | Moonstone                           | Page 207   | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |
| Fluorite          |                                       | Fluorite                            | Page 337 (Gems, their Sources, descriptions & Identification)                | None   | N/A   | N/A   | B.1, B.2.1, B.2.2 & B.2.10   | No                       |

| Material         | Variety / type   | Commercial name                              | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B) | Available as a synthetic |
|------------------|--|--|--|--|---|---|------------------------------|--------------------------|
|                  | Blue Fluorite  | Blue John                                    | Page 338   | None   | N/A   | N/A   | B.1, B.2.1, B.2.2 & B.2.10   | No                       |
|                  | Blue Fluorite  | Blue John                                    | Page 338   | Heated<br>(commonly)   | stable  | GENERAL INFORMATION   | B.1, B.2.1, B.2.2 & B.2.10   | No                       |
| Gahnite          |  | See Spinel                                   | ---  | ---  | ---   | ---   | ---                          | ---                      |
| Garnet (group)   |  |  | ---  | ---  | ---   | ---   | ---                          | ---                      |
| Almandine        |  | Almandine or Almandite                       | Page 197   | None   | N/A   | N/A   | B.1 & B.2.5                  | No                       |
| Almandine-Pyrope | Rhodolite  | Rhodolite                                    | Page 194   | None   | N/A   | N/A   | B.1 & B.2.5                  | No                       |
| Andradite        |  | Andradite                                    | Page 203-5   | None   | N/A   | N/A   | B.1 & B.2.5                  | No                       |
|                  | Demantoid  | Demantoid                                    | Page 204   | None   | N/A   | N/A   | B.1 & B.2.5                  | No                       |
|                  | Melanite   | Melanite                                     | Page 204   | None   | N/A   | N/A   | B.1 & B.2.5                  | No                       |
| Grossular        | Tsavorite (green colour due to vanadium and/or chromium) | Tsavorite, or Tsavolite, or Chrome Grossular | Page 201-2   | None   | N/A   | N/A   | B.1 & B.2.5                  | No                       |
|                  | Hessonite  | Hessonite                                    | Page 201-2   | None   | N/A   | N/A   | B.1 & B.2.5                  | No                       |
|                  | (other colours)  | Grossular with colour prefix                 | Page 201-3   | None   | N/A   | N/A   | B.1 & B.2.5                  | No                       |

| Material           | Variety / type | Commercial name                                  | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification<br>type (see clause 4.6 or 4.7) & (frequency of use <sup>1,3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires<br><u>General Information</u> or<br><u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)              | Available as a synthetic |
|--------------------|----------------|--|--|--|---|---|---|--------------------------|
| Pyrope             |                | Pyrope   | Page 193-5   | None   | N/A   | N/A   | B.1 & B.2.5                               | No                       |
|                    | Chrome Pyrope  | Chrome Pyrope                                    | Page 193-5   | None   | N/A   | N/A   | B.1 & B.2.5                               | No                       |
| Pyrope-Spessartine |                | Pyrope-Spessartine, or Malaya Garnet or Umbalite | Page 196-7   | None   | N/A   | N/A   | B.1 & B.2.5                               | No                       |
| Spessartine        |                | Spessartine, Spessartite or Mandarin Garnet      | Page 200-1   | None   | N/A   | N/A   | B.1 & B.2.5                               | No                       |
| Uvarovite          |                | Uvarovite  | Page 205-6   | None   | N/A   | N/A   | B.1 & B.2.5                               | No                       |
| Grossular          |                | See Garnet                                       | ---  | ---  | ---   | ---   | ---                                       | ---                      |
| Gypsum             | Alabaster      | Alabaster  | Page 310-12  | None   | N/A   | N/A   | B.1, B.2.1, B.2.2, B.2.3 & B.2.10         | No                       |
| Gypsum...cont      | Alabaster      | Alabaster  | Page 310-12  | Dyed<br>(commonly)   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.1, B.2.2, B.2.3, B.2.10 & B.2.11 | No                       |
|                    | Alabaster      | Alabaster  | Page 310-12  | Surface colourless waxing<br>(commonly)  | unstable  | GENERAL INFORMATION   | B.1, B.2.1, B.2.2, B.2.3, B.2.10 & B.2.11 | No                       |
|                    | Satin Spar     | Satin Spar                                       | Page 310   | None   | N/A   | N/A   | B.1, B.2.1, B.2.2, B.2.3 & B.2.10         | No                       |

| Material     | Variety / type | Commercial name        | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1,3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)                     | Available as a synthetic |
|--------------|----------------|------------------------|--|---|---|---|--|--------------------------|
| Haematite    |                | Haematite, or Hematite | Page 282-4   | None  | N/A   | N/A   | Normal B.1                                       | No                       |
| Hypersthene  |                | See Enstatite          | ---  | ---   | ---   | ---   | ---  | ---                      |
| Idocrase     |                | See Vesuvianite        | ---  | ---   | ---   | ---   | ---  | ---                      |
| Iolite       |                | See Cordierite         | ---  | ---   | ---   | ---   | ---  | ---                      |
| Ivory        |                | Ivory                  | Page 580-594   | None  | N/A   | N/A   | B.1, B.2.1, B.2.3, B.2.9, B.2.10 & B.2.13        | No                       |
|              |                | Ivory                  | Page 580-594   | Bleached (commonly)   | stable  | GENERAL INFORMATION   | B.1, B.2.1, B.2.3, B.2.9 & B.2.10                | No                       |
| Ivory...cont |                | Ivory                  | Page 580-594   | Dyed (occasionally)   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.1, B.2.3, B.2.6, B.2.9, B.2.10 & B.2.11 | No                       |
|              |                | Ivory                  | Page 580-594   | Colourless surface waxing (occasionally)  | unstable  | GENERAL INFORMATION   | B.1, B.2.1, B.2.3, B.2.9, B.2.10 & B.2.11,       | No                       |
|              |                | Ivory                  | Page 580-594   | Impregnated with colourless plastic or hardened resins (commonly)                       | unstable  | SPECIFIC INFORMATION  | B.1, B.2.1, B.2.9, B.2.10 & B.2.11               | No                       |



| Material | Variety / type                      | Commercial name             | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification<br>type (see clause 4.6 or 4.7) &<br>(frequency of use <sup>1,3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires<br><u>General Information</u> or<br><u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B) | Available as a synthetic |
|----------|-------------------------------------|-----------------------------|--|---|---|---|------------------------------|--------------------------|
| Jadeite  | Elephant Ivory                      | Ivory, or Elephant Ivory    | Page 580-594   | See ivory above   | See ivory above   | See ivory above   | See ivory above              | See ivory above          |
|          | Mammoth Ivory                       | Mammoth Ivory               | Page 580-594   | See ivory and bone above  | See ivory above   | See ivory and bone above  | See ivory and bone above     | See ivory above          |
|          | Mastodon Ivory                      | Mastodon Ivory              | Page 580-594   | See ivory and bone above  | See ivory above   | See ivory and bone above  | See ivory and bone above     | See ivory above          |
|          | Teeth (other animals)               | Ivory (with name of animal) |  | See ivory and bone above  | See ivory above   | See ivory and bone above  | See ivory and bone above     | See ivory above          |
|          | Odontolite                          | Odontolite                  | Page 580-594   | See ivory and bone above  | See ivory above   | See ivory and bone above  | See ivory and bone above     | See ivory above          |
|          | Jadeite, Jadeite-jade, or A-Jade    |                             | Page 267, 271, 272-9   | None  | N/A   | N/A   | B.1                          | No                       |
|          | Jadeite, Jadeite-jade, or B-Jade    |                             | Page 267, 271, 272-9   | Colourless polymer impregnation (commonly)  | unstable  | SPECIFIC INFORMATION  | B.1, B.2.10 & B.2.11         | No                       |
|          | Jadeite, Jadeite-jade, or C-Jade    |                             | Page 267, 271, 272-9   | Polymer and colour impregnation following acid treatment (commonly)                           | Variable  | SPECIFIC INFORMATION  | B.1, B.2.10 & B.2.11         | No                       |
|          | Jadeite, or Jadeite-jade, or C-Jade |                             | Page 267, 271, 272-9   | Dyed (commonly)   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.10 & B.2.11         | No                       |

| Material        | Variety / type | Commercial name        | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B) | Available as a synthetic |
|-----------------|----------------|------------------------|--|--|---|---|------------------------------|--------------------------|
|                 | Chloromelanite | Chloromelanite         | Page 273, 277  | None   | N/A   | N/A   | B.1                          | No                       |
| Jet             |                | Jet, or Gagat          | Page 577-79  | None   | N/A   | N/A   | B.1, B.2.1, B.2.2, & B.2.10  | No                       |
| Kornerupine     |                | Kornerupine            | Page 347-8   | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |
| Kyanite         |                | Kyanite, or Disthene   | Page 348-9   | None   | N/A   | N/A   | B.1, B.2.1, B.2.2 & B.2.10   | No                       |
| Labradorite     |                | See Feldspar           | ---  | ---  | ---   | ---   | ---                          | ---                      |
| Lazulite        |                | Lazulite               | Page 349   | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |
| Lazurite        |                | Lazurite               | Page 263   | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                       |
| Lapis Lazuli    | Lapis Lazuli   | Lapis Lazuli, or Lapis | Page 263-6   | None   | N/A   | N/A   | B.1, B.2.8 & B.2.10          | No                       |
| Lapis Lazuli... | Lapis Lazuli   | Lapis Lazuli, or Lapis | Page 263-6   | Surface colourless waxing (commonly)   | unstable  | GENERAL INFORMATION   | B.1, B.2.8, B.2.10 & B.2.11  | No                       |
|                 | Lapis Lazuli   | Lapis Lazuli, or Lapis | Page 263-6   | Dyed (commonly)  | variable  | SPECIFIC INFORMATION  | B.1, B.2.8, B.2.10 & B.2.11  | No                       |
| Lizardite       |                | See Serpentine         | ---  | ---  | ---   | ---   | ---                          | ---                      |

| Material         | Variety / type    | Commercial name   | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable,</u><br><u>Stable,</u> or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)              | Available as a synthetic |
|------------------|-------------------|-------------------|--|--|---|---|---|--------------------------|
| Malachite        |                   | Malachite         | Page 351-2   | None   | N/A   | N/A   | B.1, B.2.1, B.2.2, B.2.3 & B.2.10         | Few                      |
|                  |                   | Malachite         | Page 351-2   | Surface Colourless waxing (Occasionally)   | unstable  | GENERAL INFORMATION   | B.1, B.2.1, B.2.2, B.2.3, B.2.10 & B.2.11 | No                       |
|                  |                   | Malachite         | Page 351-2   | Impregnated with colourless plastic or hardened resin (rarely)                           | unstable  | SPECIFIC INFORMATION  | B.1, B.2.1, B.2.2, B.2.3, B.2.10 & B.2.11 | No                       |
| Malachite...cont | Azurite-Malachite | Azurite-Malachite | Page 318, 351  | None   | N/A   | N/A   | B.1, B.2.1, B.2.2, B.2.3 & B.2.10         | No                       |
|                  | Azurite-Malachite | Azurite-Malachite | Page 318, 351  | Surface colourless waxing (occasionally)   | unstable  | GENERAL INFORMATION   | B.1, B.2.1, B.2.2, B.2.3, B.2.10 & B.2.11 | No                       |
|                  | Azurite-Malachite | Azurite-Malachite | Page 318, 351  | Impregnated with plastic or other hardened agents (rarely)                               | unstable  | SPECIFIC INFORMATION  | B.1, B.2.1, B.2.2, B.2.3, B.2.10 & B.2.11 | No                       |
| Maw-sit-sit      |                   | Maw-sit-sit       | Page 272-4   | None   | N/A   | N/A   | B.1                                       | No                       |
| Microcline       |                   | See Feldspar      | ---  | ---  | ---   | ---   | ---                                       | ---                      |
| Montebrasite     |                   | See Amblygonite   | ---  | ---  | ---   | ---   | ---                                       | ---                      |

| Material   | Variety / type  | Commercial name    | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable,</u><br><u>Stable,</u> or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B) | Available as a synthetic |
|------------|---|--------------------|--|--|---|---|------------------------------|--------------------------|
| Obsidian   |   | Obsidian           | Page 287-90  | None   | N/A   | N/A   | B.1                          | No                       |
|            | Mahogany Obsidian   | Mahogany Obsidian  | Page 287-90  | None   | N/A   | N/A   | B.1                          | No                       |
|            | Sheen Obsidian  | Sheen Obsidian     | Page 287-90  | None   | N/A   | N/A   | B.1                          | No                       |
|            | Snowflake Obsidian  | Snowflake Obsidian | Page 287-90  | None   | N/A   | N/A   | B.1                          | No                       |
|            | Rainbow Obsidian  | Rainbow Obsidian   | Page 287-90  | None   | N/A   | N/A   | B.1                          | No                       |
| Oligoclase |   | See Feldspar       | ---  | ---  | ---   | ---   | ---                          | ---                      |
| Olivine    | Peridot   | Peridot            | Page 183   | None   | N/A   | N/A   | B.1, B.2.5 & B.2.8           | No                       |
|            | Peridot   | Peridot            | Page 183   | colourless oil, wax or resins in fissures (rarely)                                       | unstable  | GENERAL INFORMATION   | B.1, B.2.5, B.2.8 & B.2.11   | No                       |
| Olivine... | Peridot   | Peridot            | Page 183   | Filled open fractures with colourless hardened resin (rarely)                            | unstable  | SPECIFIC INFORMATION  | B.1, B.2.5, B.2.8 & B.2.11   | No                       |
| Opal       | (Play-of-colour) –<br>may on the basis of body tone/ transparency, or colour be described as: |                    | ---  | ---  | ---   | ---   | ---                          | ---                      |

| Material    | Variety / type  | Commercial name     | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)                     | Available as a synthetic |
|-------------|---|---------------------|--|--|---|---|--|--------------------------|
| Opal...cont | Black to very dark                                      | Black Opal          | Page 243   | None   | N/A   | N/A   | B.1, B.2.2, B.2.3, B.2.4, B.2.5 & B.2.10         | Many                     |
|             | Black to very dark                                      | Black Opal          | Page 243   | Impregnated with plastic or resin (rarely)   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.2, B.2.3, B.2.4, B.2.5, B.2.10 & B.2.11 | No                       |
|             | Black to very dark<br>(transparent to near transparent) | Black Crystal Opal  | page 346-8   | None   | N/A   | N/A   | B.1, B.2.2, B.2.3, B.2.4, B.2.5 & B.2.10         | Many                     |
|             | Black to very dark<br>(transparent to near-transparent) | Black Crystal Opal  | page 346-8   | Impregnated with plastic or resin (rarely)   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.2, B.2.3, B.2.4, B.2.5, B.2.10 & B.2.11 | No                       |
|             | White   | White Opal          | Page 246-6   | None   | N/A   | N/A   | B.1, B.2.2, B.2.3, B.2.4, B.2.5 & B.2.10         | Many                     |
|             | White   | White Opal          | Page 246-6   | Impregnated with plastic or resin (rarely)   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.2, B.2.3, B.2.4, B.2.5, B.2.10 & B.2.11 | No                       |
|             | White (transparent to near-transparent)                 | Opal, or Water Opal | Page 243   | None   | N/A   | N/A   | B.1, B.2.2, B.2.3, B.2.4, B.2.5 & B.2.10         | Many                     |

| Material    | Variety / type                             | Commercial name     | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)                     | Available as a synthetic |
|-------------|--|---------------------|--|--|---|---|--|--------------------------|
| Opal...cont | White (transparent to near-transparent)    | Opal, or Water Opal | Page 243   | Impregnated with plastic or resin (rarely)   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.2, B.2.3, B.2.4, B.2.5, B.2.10 & B.2.11 | .....                    |
|             | Oolitic Opal                               | Oolitic Opal        |  | None   | N/A   | N/A   | B.1, B.2.2, B.2.3, B.2.4, B.2.5 & B.2.10         | No                       |
|             | Oolitic Opal                               | Oolitic Opal        |  | Impregnated with plastic or resin (rarely)   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.1, B.2.2, B.2.4, B.2.5, & B.2.11        | No                       |
|             | Orange to Red (transparent to translucent) | Fire Opal           | Page 244-5   | None   | N/A   | N/A   | B.1, B.2.2, B.2.3, B.2.4, B.2.5 & B.2.10         | No                       |
|             | (Attached to ironstone)                    | Boulder Opal        | Page 249   | None   | N/A   | N/A   | B.1, B.2.2, B.2.3, B.2.4, B.2.5 & B.2.10         | No                       |
|             | (Attached to ironstone)                    | Boulder Opal        | Page 249   | Infusion of unhardened colourless substances into voids (occasionally)                   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.2, B.2.3, B.2.4, B.2.5, B.2.10 & B.2.11 | No                       |

| Material    | Variety / type   | Commercial name | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)                     | Available as a synthetic |
|-------------|--|-----------------|--|--|---|---|--|--------------------------|
| Opal...cont | (In matrix)  | Matrix Opal     | Page 246   | None   | N/A   | N/A   | B.1, B.2.2, B.2.3, B.2.4, B.2.5 & B.2.10         | No                       |
|             | (In matrix)  | Matrix Opal     | Page 246   | Sugar / acid treatment (commonly)  | stable  | SPECIFIC INFORMATION  | B.1, B.2.2, B.2.3, B.2.4, B.2.5, B.2.10 & B.2.11 | No                       |
|             | Hydrophane   | Hydrophane      |  | None   | N/A   | N/A   | B.1, B.2.2, B.2.3, B.2.4, B.2.5 & B.2.10         | No                       |
|             | Hydrophane   | Hydrophane      |  | Infusion of unhardened colourless substances into voids (occasionally)                   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.2, B.2.3, B.2.4, B.2.5, B.2.10 & B.2.11 | No                       |
|             | Hydrophane   | Hydrophane      |  | Sugar / acid treatment (commonly)  | stable  | SPECIFIC INFORMATION  | B.1, B.2.2, B.2.3, B.2.4, B.2.5, B.2.10 & B.2.11 | No                       |
|             | (No play-of-colour)<br><br>Common opal – may on the basis of colour / inclusions, be described as: | Common Opal     | Page 246-6   | None   | N/A   | N/A   | B.1, B.2.2, B.2.3, B.2.4, B.2.5 & B.2.10         | Many                     |

| Material    | Variety / type                           | Commercial name                | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)                     | Available as a synthetic |
|-------------|--|--------------------------------|--|--|---|---|--|--------------------------|
| Opal...cont | (No play-of-colour)                      | Common Opal                    | Page 246-6   | Impregnated with plastic or resin (rarely)   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.2, B.2.3, B.2.4, B.2.5, B.2.10 & B.2.11 | Many                     |
|             | White, porcelain-like                    | Cacholong Opal                 | Page 246   | Impregnated with plastic or resin (rarely)   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.2, B.2.3, B.2.4, B.2.5, B.2.10 & B.2.11 | Few                      |
|             | Orange to Red                            | Fire Opal                      | Page 246-6   | None   | N/A   | N/A   | B.1, B.2.2, B.2.3, B.2.4, B.2.5 & B.2.10         | No                       |
|             | Green                                    | Prase Opal, or Green Opal      | Page 252   | None   | N/A   | N/A   | B.1, B.2.2, B.2.3, B.2.4, B.2.5 & B.2.10         | No                       |
|             | (other colours)                          | Common Opal with colour prefix | Page 246-6   | None   | N/A   | N/A   | B.1, B.2.2, B.2.3, B.2.4, B.2.5 & B.2.10         | Many                     |
|             | (other colours)                          | Common Opal with colour prefix | Page 246-6   | Impregnated with plastic or resin (rarely)   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.2, B.2.3, B.2.4, B.2.5, B.2.10 & B.2.11 | No                       |
|             | With green or black dendritic inclusions | Moss Opal                      | Page 252   | None   | N/A   | N/A   | B.1, B.2.2, B.2.3, B.2.4, B.2.5 & B.2.10         | No                       |



| Material   | Variety / type                         | Commercial name                             | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1,3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)                     | Available as a synthetic |
|------------|--|---|--|---|---|---|--|--------------------------|
| Opicalcite | <i>Pseudomorphous after wood</i>       | Opalised Wood, or Silicified Wood           | Page 245   | None  | N/A   | N/A   | B.1, B.2.2, B.2.3, B.2.4, B.2.5 & B.2.10         | No                       |
|            | <i>Pseudomorphous after shells</i>     | Opalised Shell, or (animal name) Shell Opal | Page 245   | None  | N/A   | N/A   | B.1, B.2.2, B.2.3, B.2.4, B.2.5 & B.2.10         | No                       |
|            |  | Opicalcite                                  | Page 297, 371  | None  | N/A   | N/A   | B.1, B.2.1, B.2.2, B.2.3, B.2.8 & B.2.10         | No                       |
|            |  | Opicalcite                                  | Page 297, 371  | Impregnated with wax<br><br>(occasionally)  | unstable  | SPECIFIC INFORMATION  | B.1, B.2.1, B.2.2, B.2.3, B.2.8, B.2.10 & B.2.11 | No                       |
|            | Connemara                              | Connemara                                   | Page 277, 297  | None  | N/A   | N/A   | B.1, B.2.1, B.2.2, B.2.3, B.2.4, B.2.5 & B.2.10  | No                       |
|            | Connemara                              | Connemara                                   | Page 277, 297  | Surface colourless waxing<br><br>(occasionally)   | unstable  | GENERAL INFORMATION   | B.1, B.2.1, B.2.2, B.2.3, B.2.8, B.2.10 & B.2.11 | No                       |
|            | Verd Antique ( <i>see Serpentine</i> ) | Verd Antique                                | Page 277, 296  | None  | N/A   | N/A   | B.1, B.2.1, B.2.2, B.2.3, B.2.4, B.2.5 & B.2.10  | No                       |

| Material                       | Variety / type                           | Commercial name       | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification<br>type (see clause 4.6 or 4.7) & (frequency of use <sup>1,3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires<br><u>General Information</u> or<br><u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)                                 | Available as a synthetic |
|--------------------------------|--|-----------------------|--|--|---|---|--|--------------------------|
| Ophicalcite...<br>cont         | Verd Antique (see<br><i>Serpentine</i> ) | Verd Antique          | Page 277, 296  | Surface<br>colourless<br>waxing<br><br>(occasionally)                                      | unstable  | GENERAL<br>INFORMATION  | B.1, B.2.1,<br>B.2.2, B.2.3,<br>B.2.8,<br>B.2.10 &<br>B.2.11 | No                       |
| Orthoclase                     |  | See Feldspar          | ---  | ---  | ---   | ---   | ---  | ---                      |
| Pearl                          |  | See the Pearl Book    | ---  | ---  | ---   | ---   | ---  | ---                      |
| Pezzottaite                    | Pezzottaite                              | Pezzottaite           | ---  | None   | N/A   | N/A   | B.1  | No                       |
|                                | Pezzottaite                              | Pezzottaite Cat's eye | ---  | None   | N/A   | N/A   | B.1  | No                       |
| Phenakite                      |  | Phenakite             | Page 358   | None   | N/A   | N/A   | B.1  | No                       |
| Prehnite                       |  | Prehnite              | Page 361   | None   | N/A   | N/A   | B.1  | No                       |
| Purpurite                      |  | Purpurite             |  | None   | N/A   | N/A   | N/A  | No                       |
| Pyrite                         |  | Pyrite                | Page 280-2   | None   | N/A   | N/A   | B.1  | No                       |
| Pyrope                         |  | See Garnet            | ---  | ---  | ---   | ---   | ---  | ---                      |
| Pyrophyllite                   |  | Pyrophyllite          | Page 362-3   | None   | N/A   | N/A   | B.1, B.2.1 &<br>B.2.10                                       | No                       |
| Quartz (macro-<br>crystalline) |  |                       | Page 219-32  | ---  | ---   | ---   | ---  | ---                      |

| Material       | Variety / type                     | Commercial name                             | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B) | Available as a synthetic |
|----------------|------------------------------------|---|--|--|---|---|------------------------------|--------------------------|
| Quartz... cont | Amethyst                           | Amethyst                                    | Page 225-6   | None   | Stable<br>(Some stones are unstable)                                    | N/A   | B.1 & B.2.6                  | Many                     |
|                | Amethyst                           | Amethyst                                    | Page 225-6   | Heated (occasionally)  | stable  | GENERAL INFORMATION   | B.1                          | Many                     |
|                | Amethyst-Citrine<br><i>bicolor</i> | Ametrine                                    | Page 226, 425  | None   | N/A   | N/A   | B.1                          | Some                     |
|                | Amethyst-Citrine<br><i>bicolor</i> | Ametrine                                    |  | Heated (rarely)  | Citrine, Stable   | General   | B.1                          | Rare                     |
|                | Amethyst-Milky Quartz              | Amethyst-Milky Quartz                       | Page 224   | None   | N/A   | N/A   | B.1                          | No                       |
|                | Smoky Quartz                       | Smoky Quartz, or Cairngorm, or Brown Quartz | Page 224-5   | None   | N/A   | N/A   | B.1                          | No                       |
|                | Smoky Quartz                       | Smoky Quartz, or Cairngorm, or Brown Quartz | Page 224-5   | Irradiated (occasionally)  | stable  | SPECIFIC INFORMATION  | B.1                          | Many                     |
|                | (dark brown to black)              | Morion                                      | Page 224   | None   | N/A   | N/A   | B.1                          | Some                     |
|                | Citrine                            | Citrine, or Yellow Quartz                   | Page 225-6   | None   | N/A   | N/A   | B.1                          | Many                     |
|                | Citrine                            | Citrine, or Yellow Quartz                   | Page 225-6   | Heated (usually)   | stable  | GENERAL INFORMATION   | B.1                          | No                       |
| Prasiolite     | Prasiolite, or Green Quartz        | Page 226                                    | None   | N/A  | N/A   | B.1   | Many                         |                          |

| Material      | Variety / type  | Commercial name                     | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B) | Available as a synthetic |
|---------------|---|-------------------------------------|--|--|---|---|------------------------------|--------------------------|
|               | Prasiolite  | Prasiolite, or Green Quartz         | Page 226   | Heated (usually)   | stable  | GENERAL INFORMATION   | B.1                          | No                       |
|               | Rock Crystal  | Rock Crystal                        | Page 221-3   | None   | N/A   | N/A   | B.1                          | Many                     |
|               | Rose Quartz   | Rose Quartz                         | Page 229-30  | None   | N/A   | N/A   | B.1                          | Some                     |
|               | Aventurine Quartz   | Aventurine Quartz                   | Page 231-2   | None   | N/A   | N/A   | B.1                          | No                       |
|               | Blue Quartz<br>(colour due to inclusions of dumortierite) | Blue Quartz, or Dumortierite Quartz | Page 332-3   | None   | N/A   | N/A   | B.1                          | Many                     |
|               | Iris Quartz   | Iris Quartz                         | Page 219-32  | None   | N/A   | N/A   | B.1                          | Some                     |
| Quartz...cont | Iris Quartz   | Iris Quartz                         | Page 219-32  | Heated and quenched (occasionally)   | stable  | GENERAL INFORMATION   | B.1 & B.2.10                 | Some                     |
|               | Iris Quartz   | Iris Quartz                         | Page 219-32  | Dyed (commonly)  | unstable  | SPECIFIC INFORMATION  | B.1, B.2.10 & B.2.11         | No                       |
|               | Quartzite   | Quartzite                           |  | None   | N/A   | N/A   | B.1 & B.2.3                  | No                       |
|               | Quartzite   | Quartzite                           |  | Dyed (usually)   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.3, B.2.10 & B.2.11  | No                       |

| Material                                   | Variety / type  | Commercial name                                 | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B) | Available as a synthetic |
|--|---|---|--|--|---|---|------------------------------|--------------------------|
|  | Quartzite   | Quartzite                                       |  | Impregnated with colourless plastic or hardened resins<br><br>(occasionally)             | unstable  | SPECIFIC INFORMATION  | B.1, B.2.10 & B.2.11         | No                       |
|  | Quartz Cat's-eye  | Quartz Cat's-eye                                | Page 132-3, 140  | None   | N/A   | N/A   | B.1                          | No                       |
|  | Quartz<br><i>with inclusions</i>  | Rutilated Quartz,<br>Tourmalinated Quartz, etc. |  | None   | N/A   | N/A   | B.1                          | No                       |
| Quartz<br>(crypto/microcrystalline)        | Chalcedony or Agate:  |   |  | ---  | ---   | ---   | ---                          | ---                      |
| Quartz<br>(crypto/microcrystalline)...cont | Chrysoprase<br><i>(green colour due to inclusions of nickeliferous clay)</i>                  | Chrysoprase                                     | Page 233-4   | None   | N/A   | N/A   | B.1                          | No                       |
|  | Chrome Chalcedony<br><i>(green colour due to chromium)</i>                                    | Chrome Chalcedony, or Mtorolite                 | Page 232-6   | None   | N/A   | N/A   | B.1                          | No                       |
|  | Chrysocolla Chalcedony<br><i>(blue to blue-green colour due to inclusions of chrysocolla)</i> | Chrysocolla Chalcedony                          | Page 232-6   | None   | N/A   | N/A   | B.1                          | No                       |

| Material                                   | Variety / type          | Commercial name   | Best trade reference<br>( <i>Gems, their Sources, Descriptions &amp; Identification</i> ) | Possible modification<br>type (see clause 4.6 or 4.7) &<br>(frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires<br><u>General Information</u> or<br><u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B) | Available as a synthetic |
|--|-------------------------|---|---|--|---|---|------------------------------|--------------------------|
|  | Cornelian               | Cornelian, or Carnelian                                       | Page 235  | None   | N/A   | N/A   | B.1                          | No                       |
|  | Cornelian               | Cornelian, or Carnelian                                       | Page 235  | Heated (usually)   | stable  | GENERAL INFORMATION   | B.1                          | No                       |
|  | Cornelian               | Cornelian, or Carnelian                                       | Page 235  | Dyed (unusual)   | variable  | SPECIFIC INFORMATION  | B.1 & B.2.6                  | No                       |
|  | Sard                    | Sard  | Page 235  | None   | N/A   | N/A   | B.1                          | No                       |
|  | Prase                   | Prase   | Page 235  | None   | N/A   | N/A   | B.1                          | No                       |
| Quartz<br>(crypto/microcrystalline)...cont | (other uniform colours) | Agate with colour prefix, or<br>Chalcedony with colour prefix | Page 235  | None   | N/A   | N/A   | B.1                          | No                       |
|  | (other uniform colours) | Agate with colour prefix, or<br>Chalcedony with colour prefix | Page 235  | Dyed black<br>(always)   | stable  | SPECIFIC INFORMATION  | B.1                          | No                       |
|  |                         | Agate with colour prefix, or<br>Chalcedony with colour prefix | Page 235  | Dyed blue<br>(always))   | variable  | SPECIFIC INFORMATION  | B.1 & B.2.6                  | No                       |
|  |                         | Agate with colour prefix, or<br>Chalcedony with colour prefix | Page 235  | Dyed green<br>(always))  | variable  | SPECIFIC INFORMATION  | B.1 & B.2.6                  | No                       |

| Material                                   | Variety / type                            | Commercial name  | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B) | Available as a synthetic |
|--|---|--|--|--|---|---|------------------------------|--------------------------|
|  | (other uniform colours)                   | Agate with colour prefix, or Chalcedony with colour prefix | Page 236-9   | Dyed (commonly)  | unstable  | SPECIFIC INFORMATION  | B.1 & B.2.6                  | No                       |
|  | Banded Agate                              | Banded Agate   | Page 236   | None   | N/A   | N/A   | B.1                          | No                       |
|  | Banded Agate                              | Banded Agate   | Page 236   | Dyed (usually)   | Fairly stable   | SPECIFIC INFORMATION  | B.1, B.2.6 & B.2.11          | No                       |
|  | Fire Agate                                | Fire Agate   | Page 236   | None   | N/A   | N/A   | B.1                          | No                       |
|  | Iris Agate                                | Iris Agate   | Page 236-9   | None   | N/A   | N/A   | B.1                          | No                       |
|  | Moss Agate                                | Moss Agate, or Dendritic Agate                             | Page 239   | None   | N/A   | N/A   | B.1                          | No                       |
| Quartz<br>(crypto/microcrystalline)...cont | Onyx (straight layers of black and white) | Onyx   | Page 236   | Dyed (always)  | stable  | SPECIFIC INFORMATION  | B.1                          | No                       |
|  | Sardonyx                                  | Sardonyx   | Page 236   | None   | N/A   | N/A   | B.1                          | No                       |
|  | Jasper:                                   |  |  | ---  | ---   | ---   | ---                          | ---                      |
|  | Heliotrope                                | Heliotrope, or Bloodstone                                  | Page 235   | None   | N/A   | N/A   | B.1                          | No                       |
|  | Multicoloured Jasper                      | Multicoloured Jasper                                       | Page 240-2   | None   | N/A   | N/A   | B.1                          | No                       |
|  | Orbicular Jasper                          | Orbicular Jasper   | Page 240   | None   | N/A   | N/A   | B.1                          | No                       |

| Material                                   | Variety / type                    | Commercial name                    | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1,3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)      | Available as a synthetic |
|--|-----------------------------------|------------------------------------|--|---|---|---|-----------------------------------|--------------------------|
|  | Jasper, other colours             | Jasper with colour prefix          | Page 240-2   | None  | N/A   | N/A   | B.1                               | No                       |
|  | Jasper, other colours             | Jasper with colour prefix          | Page 240-2   | Dyed (commonly)   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.6 & B.2.11               | No                       |
|  | Pseudomorphous after Crocidolite: |                                    |  | ---   | ---   | ---   | ---                               | ---                      |
|  | Falcon's-eye                      | Falcon's-eye, or Hawk's-eye        | Page 230-1   | None  | N/A   | N/A   | B.1                               | No                       |
| Quartz<br>(crypto/microcrystalline)...cont | Tiger's-eye                       | Tiger's-eye                        | Page 230-1   | None  | N/A   | N/A   | B.1                               | No                       |
|  | Tiger's-eye                       | Tiger's-eye                        | Page 230-1   | Heated<br>(commonly)  | stable  | GENERAL INFORMATION   | B.1                               | No                       |
|  | Tiger's-eye                       | Tiger's-eye                        | Page 230-1   | Dyed<br>(commonly)  | unstable  | SPECIFIC INFORMATION  | B.1, B.2.6, B.2.10 & B.2.11       | No                       |
|  | Pseudomorphous after Wood         | Petrified Wood, or Silicified Wood | Page 239-240   | None  | N/A   | N/A   | B.1                               | No                       |
| Rhodochrosite                              |                                   | Rhodochrosite                      | Page 364   | None  | N/A   | N/A   | B.1, B.2.1, B.2.2, B.2.8 & B.2.10 | No                       |
| Rhodonite                                  |                                   | Rhodonite                          | Page 365   | None  | N/A   | N/A   | B.1, B.2.1, & B.2.2               | No                       |



| Material  | Variety / type                 | Commercial name | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)       | Available as a synthetic        |
|---|--------------------------------|-----------------|--|--|---|---|------------------------------------|---------------------------------|
| Scapolite   |                                | Scapolite       | Page 366-8   | None   | N/A   | N/A   | B.1                                | No                              |
| Serpentine (group of) Antigorite, Chrysotile and Lizardite        |                                |                 | Page 369-72  | None   | N/A   | N/A   | B.1, B.2.8 & B.2.10                | No                              |
|   |                                |                 | Page 369-72  | Surface colourless waxing (commonly)   | unstable  | GENERAL INFORMATION   | B.1, B.2.8, B.2.10 & B.2.11        | No                              |
| Serpentine (group of) Antigorite, Chrysotile and Lizardite...cont |                                |                 | Page 369-72  | Dyed (commonly)  | unstable  | SPECIFIC INFORMATION  | B.1, B.2.6, B.2.8, B.2.10 & B.2.11 | No                              |
|   | Williamsite                    |                 | Page 369-72  | None   | N/A   | N/A   | B.1, B.2.8 & B.2.10                | No                              |
| Antigorite  |                                | Antigorite      | Page 370-2   | See Serpentine (group of) above  | See Serpentine (group of) above   | See Serpentine (group of) above   | See Serpentine (group of) above    | See Serpentine (group of) above |
|   | Bowenite (green or blue green) | Bowenite        | Page 275-6, 278  | See Serpentine (group of) above  | See Serpentine (group of) above   | See Serpentine (group of) above   | See Serpentine (group of) above    | See Serpentine (group of) above |
| Chrysotile  |                                | Chrysotile      | Page 370-1   | See Serpentine (group of) above  | See Serpentine (group of) above   | See Serpentine (group of) above   | See Serpentine (group of) above    | See Serpentine (group of) above |

| Material     | Variety / type    | Commercial name                     | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification<br>type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires<br><u>General Information</u> or<br><u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)                     | Available as a synthetic        |
|--------------|-------------------|-------------------------------------|--|---|---|---|--|---------------------------------|
| Lizardite    |                   | Lizardite                           | Page 370-1   | See Serpentine (group of) above   | See Serpentine (group of) above   | See Serpentine (group of) above   | See Serpentine (group of) above                  | See Serpentine (group of) above |
| Verd Antique |                   | Verd Antique                        | Page 370-1   | See Serpentine (group of) above   | See Serpentine (group of) above   | See Serpentine (group of) above   | See Serpentine (group of) above                  | See Serpentine (group of) above |
| Shell        |                   | Shell, or Shell with name of animal | Page 564-7   | None  | N/A   | N/A   | B.1, B.2.1, B.2.3, B.2.6, B.2.8 & B.2.10         | No                              |
|              |                   | Shell, or Shell with name of animal | Page 564-7   | Dyed (often)  | unstable  | SPECIFIC INFORMATION  | B.1, B.2.1, B.2.3, B.2.6, B.2.8, B.2.10 & B.2.11 | No                              |
|              | Mother of Pearl   | Mother of Pearl                     | Page 501   | None  | N/A   | N/A   | B.1, B.2.1, B.2.3, B.2.8 & B.2.10                | No                              |
|              | Mother of Pearl   | Mother of Pearl                     | Page 501   | Dyed (sometimes)  | unstable  | SPECIFIC INFORMATION  | B.1, B.2.1, B.2.3, B.2.6, B.2.8, B.2.10 & B.2.11 | No                              |
| Sillimanite  |                   | Sillimanite                         | Page 337   | None  | N/A   | N/A   | B.1 & B.2.10                                     | No                              |
|              | (with chatoyancy) | Sillimanite Cat's-eye               |  | None  | N/A   | N/A   | B.1 & B.2.10                                     | No                              |

| Material          | Variety / type  | Commercial name             | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)       | Available as a synthetic |
|-------------------|-----------------|-----------------------------|--|--|---|---|------------------------------------|--------------------------|
| Sinhalite         |                 | Sinhalite                   | Page 373   | None   | N/A   | N/A   | B.1 & B.2.10                       | No                       |
| Smithsonite       |                 | Smithsonite                 | Page 373-4   | None   | N/A   | N/A   | B.1, B.2.1, B.2.2, B.2.8 & B.2.10  | No                       |
| Smithsonite...    | (blue to green) | Smithsonite, or Bonamite    | Page 373   | None   | N/A   | N/A   | B.1, B.2.1, B.2.2, B.2.8 & B.2.10  | No                       |
| Sodalite          |                 | Sodalite                    | Page 374-5   | None   | N/A   | N/A   | B.1 & B.2.10                       | No                       |
| Sodalite...cont   |                 | Sodalite                    | Page 374-5   | Dyed (rarely)  | unstable  | SPECIFIC INFORMATION  | B.1, B.2.2, B.2.6, B.2.10 & B.2.11 | No                       |
| Spessartine       |                 | See garnet                  | ---  | ---  | ---   | ---   | ---                                | ---                      |
| Sphalerite        |                 | Sphalerite, or Zinc Blende  | Page 386   | None   | N/A   | N/A   | B.1, B.2.1 & B.2.10                | No                       |
| Sphene            |                 | See Titanite                | ---  | ---  | ---   | ---   | ---                                | ---                      |
| Spinel (group of) |                 |                             | ---  | ---  | ---   | ---   | ---                                | ---                      |
| Spinel            |                 | Spinel (with colour prefix) | Page 141-9   | None   | N/A   | N/A   | B.1                                | Yes                      |
|                   | Pleonaste       | Pleonaste, or Black Spinel  | Page 141-2   | None   | N/A   | N/A   | B.1                                | No                       |

| Material       | Variety / type                                    | Commercial name              | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)      | Available as a synthetic |
|----------------|---|------------------------------|--|--|---|---|-----------------------------------|--------------------------|
| Spinel-Gahnite | Gahnospinel                                       | Gahnospinel                  | Page 141   | None   | N/A   | N/A   | B.1                               | No                       |
|                | Gahnite   | Gahnite                      | Page 341   | None   | N/A   | N/A   | B.1                               | No                       |
| Spodumene      | Kunzite   | Kunzite                      | Page 186-90  | None   | unstable  | N/A   | B.1, B.2.2, B.2.6 & B.2.10        | No                       |
|                | Kunzite   | Kunzite                      | Page 186-90  | Heated,<br>(commonly)  | unstable  | GENERAL INFORMATION   | B.1, B.2.2, B.2.6 & B.2.10        | No                       |
|                | Kunzite   | Kunzite                      | Page 186-90  | Irradiated<br>(commonly)   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.2, B.2.6 & B.2.10        | No                       |
|                | Hiddenite ( <i>green colour due to chromium</i> ) | Hiddenite                    | Page 186-89  | None   | unstable  | N/A   | B.1, B.2.2 & B.2.10               | No                       |
|                | ( <i>other colours</i> )                          | Spodumene with colour prefix | Page 186-90  | None   | N/A   | N/A   | B.1, B.2.2, B.2.6, & B.2.10       | No                       |
|                | ( <i>other colours</i> )                          | Spodumene with colour prefix | Page 186-90  | Green produced by irradiation (rarely)   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.2, B.2.6, & B.2.10       | No                       |
| Sugilite       |   | Sugilite                     | Page 378   | None   | N/A   | N/A   | B.1 & B.2.10                      | No                       |
| Talc           | Steatite  | Steatite, or Soapstone       | Page 374   | None   | N/A   | N/A   | B.1, B.2.1, B.2.2, B.2.3 & B.2.10 | No                       |

| Material  | Variety / type | Commercial name        | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)              | Available as a synthetic |
|-----------|----------------|------------------------|--|--|---|---|---|--------------------------|
|           | Steatite       | Steatite, or Soapstone | Page 374   | Dyed<br><br>(rarely)   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.1, B.2.2, B.2.3, B.2.10 & B.2.11 | No                       |
| Taaffeite |                | Taaffeite              | Page 379-80  | None   | N/A   | N/A   | B.1 & B.2.10                              | No                       |
| Tektite   |                | Tektite                | Page 290-2   | None   | N/A   | N/A   | B.1                                       | No                       |
|           | Moldavite      | Moldavite              | Page 291-2   | None   | N/A   | N/A   | B.1                                       | No                       |
| Titanite  |                | Titanite, or Sphene    | Page 375   | None   | N/A   | N/A   | B.1 & B.2.10                              | No                       |
| Topaz     |                | Topaz                  | Page 150-163   | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10                       | No                       |
|           |                | Topaz                  | Page 150-163   | Heated to produce pink<br><br>(usually)  | stable  | GENERAL INFORMATION   | B.1, B.2.2 & B.2.10                       | No                       |
|           |                | Topaz                  | Page 150-163   | Irradiated and heated to produce blue (usually)  | stable  | SPECIFIC INFORMATION  | B.1, B.2.2 & B.2.10                       | No                       |
|           |                | Topaz                  | Page 150-163   | Irradiated to yellow and orange (occasionally)   | unstable  | SPECIFIC INFORMATION  | B.1, B.2.2, B.2.6 & B.2.10                | No                       |
|           |                | Topaz                  | Page 150-163   | Irradiated to produce green (Usually)  | unstable  | SPECIFIC INFORMATION  | B.1, B.2.2, B.2.6 & B.2.10                | No                       |

| Material         | Variety / type                               | Commercial name                                  | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> )          | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B) | Available as a synthetic |
|------------------|--|--|--|---|---|---|------------------------------|--------------------------|
| Topaz...cont     |  | Topaz  | Page 150-163   | Diffused to produce green<br><br>(commonly)   | Stable<br>(without re-cutting or re-polishing)                          | SPECIFIC INFORMATION  | B.1, B.2.2, B.2.10 & B.2.13  | No                       |
|                  |  | Topaz  | Page 150-163   | Coated with very thin layers of metal oxide to provide various colours and to add special effects | Unstable  | SPECIFIC INFORMATION  | B.1, B.2.2, B.2.6 & B.2.10   | No                       |
| Tortoiseshell    |  | Tortoiseshell                                    | Page 594-9   | None  | N/A   | N/A   | B.1, B.2.1, & B.2.3          | No                       |
| Tourmaline Group | Colourless                                   | Colourless Tourmaline, or Achroite               | Page 163-5   | None  | N/A   | N/A   | B.1                          | No                       |
|                  | Pink to red                                  | Pink Tourmaline, or Red Tourmaline, or Rubellite | Page 163-5   | None  | N/A   | N/A   | B.1                          | No                       |
|                  | Pink to red                                  | Pink Tourmaline, or Red Tourmaline, or Rubellite | Page 163-5   | Heated<br><br>(occasionally)  | stable  | GENERAL INFORMATION   | B.1                          | No                       |
|                  | Pink to red                                  | Pink Tourmaline, or Red Tourmaline, or Rubellite | Page 163-5   | Irradiated<br><br>(commonly)  | stable  | SPECIFIC INFORMATION  | B.1                          | No                       |
|                  | <i>Green due to chromium and/or vanadium</i> | Chrome Tourmaline                                | Page 163-5   | None  | N/A   | N/A   | B.1                          | No                       |

| Material                | Variety / type                     | Commercial name                | Best trade reference<br>( <i>Gems, their Sources, Descriptions &amp; Identification</i> ) | Possible modification<br>type (see clause 4.6 or 4.7) &<br>(frequency of use <sup>1,3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u>                | Requires<br><u>General Information</u> or<br><u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B) | Available as a synthetic |    |
|-------------------------|------------------------------------|--------------------------------|---|---|--|---|------------------------------|--------------------------|----|
| Tourmaline group...cont | Green                              | Green Tourmaline, or verdelite | verdelith   | Page 163-5  | None   | N/A   | N/A                          | B.1                      | No |
|                         | Green                              | Green Tourmaline, or verdelite | verdelith   | Page 163-5  | Heated<br>(commonly)   | stable  | GENERAL INFORMATION          | B.1                      | No |
|                         | Green                              | Green Tourmaline, or verdelite | verdelith   | Page 163-5  | colourless oils, resins and waxes in fissures<br><br>(rarely)                          | unstable  | GENERAL INFORMATION          | B.1, B.2.10 & B.2.11     | No |
|                         | Green                              | Green Tourmaline, or verdelite | verdelith   | Page 163-5  | Cavities and fractures filled with colourless hardened substances<br><br>(very rarely) | unstable  | SPECIFIC INFORMATION         | B.1, B.2.10 & B.2.11     | No |
|                         | Green to blue <i>due to copper</i> | Paraiba Tourmaline             |   | Page 163-5  | None   | N/A   | N/A                          | B.1                      | No |
|                         | Green to blue <i>due to copper</i> | Paraiba Tourmaline             |   | Page 163-5  | Heated<br>(commonly)   | stable  | GENERAL INFORMATION          | B.1                      | No |

| Material                | Variety / type                     | Commercial name                | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B) | Available as a synthetic |
|-------------------------|------------------------------------|--------------------------------|--|--|---|---|------------------------------|--------------------------|
| Tourmaline group...cont | Green to blue <i>due to copper</i> | Paraiba Tourmaline             | Page 163-5   | Filling of fissures with colourless oils, wax and resins<br><br>(commonly)               | unstable  | GENERAL INFORMATION   | B.1, B.2.10 & B.2.11         | No                       |
|                         | Green to blue <i>due to copper</i> | Paraiba Tourmaline             | Page 163-5   | Filling of cavities and fractures with colourless hardened substances<br><br>(commonly)  | unstable  | SPECIFIC INFORMATION  | B.1, B.2.10 & B.2.11         | No                       |
|                         | Blue                               | Blue Tourmaline, or Indicolite | Page 163-5   | None   | N/A   | N/A   | B.1                          | No                       |
|                         | Blue                               | Blue Tourmaline, or Indicolite | Page 163-5   | Heated<br><br>(commonly)   | stable  | GENERAL INFORMATION   | B.1                          | No                       |
|                         | (other colours)                    | Tourmaline with colour prefix  | Page 163-5   | None   | N/A   | N/A   | B.1                          | No                       |
|                         | (other colours)                    | Tourmaline with colour prefix  | Page 163-5   | Heated to produce yellow/orange<br><br>(rarely)  | stable  | GENERAL INFORMATION   | B.1                          | No                       |
|                         | (other colours)                    | Tourmaline with colour prefix  | Page 163-5   | Irradiated to improve yellow/orange<br><br>(rarely)                                      | stable  | SPECIFIC INFORMATION  | B.1                          | No                       |



| Material                | Variety / type                       | Commercial name   | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification<br>type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires<br><u>General Information</u> or<br><u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B)       | Available as a synthetic |
|-------------------------|--------------------------------------|---|--|---|---|---|------------------------------------|--------------------------|
| Tourmaline group...cont | <i>Parti-coloured:</i>               | Parti-coloured, Bi-coloured, or tri-coloured Tourmaline | Page 163-5   | None  | N/A   | N/A   | B.1                                | No                       |
|                         | <i>(with red core and green rim)</i> | Watermelon Tourmaline                                   | Page 163-5   | None  | N/A   | N/A   | B.1                                | No                       |
|                         | Liddicoatite                         | Liddicoatite  | Page 165   | None  | N/A   | N/A   | B.1                                | No                       |
|                         | Tourmaline Cat's-eye                 | Tourmaline Cat's-eye                                    | Page 163-5   | None  | N/A   | N/A   | B.1                                | No                       |
| Tremolite               |                                      | See Actinolite  | ---  | ---   | ---   | ---   | ---                                |                          |
| Tugtupite               |                                      | Tugtupite   | Page 381   | None  | N/A   | N/A   | B.1 & B.2.10                       | No                       |
| Turquoise               |                                      | Turquoise   | Page 254-63  | None  | N/A   | N/A   | B.1, B.2.2, B.2.3 & B.2.10         | No                       |
|                         |                                      | Turquoise   | Page 254-63  | Impregnated with plastic<br>(commonly)  | unstable  | SPECIFIC INFORMATION  | B.1, B.2.10 & B.2.11               | No                       |
|                         |                                      | Turquoise   | Page 254-63  | Surface colourless waxing<br>(commonly)   | unstable  | GENERAL INFORMATION   | B.1, B.2.10 & B.2.11               | No                       |
|                         |                                      | Turquoise   | Page 254-63  | Dyed<br>(rarely)  | unstable  | SPECIFIC INFORMATION  | B.1, B.2.2, B.2.3, B.2.10 & B.2.11 | No                       |

| Material               | Variety / type   | Commercial name                             | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable,</u><br><u>Stable,</u> or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B) | Available as a synthetic           |     |
|------------------------|------------------|---|--|--|---|---|------------------------------|------------------------------------|-----|
| Turquoise...<br>cont   | Turquoise Matrix | Turquoise Matrix, or Spider's Web Turquoise | Page 255   | See above  | Turquoise   | See above   | See above                    | B.1, B.2.2, B.2.3, B.2.10 & B.2.11 | No  |
| Uvarovite              |                  | See Garnet                                  | ---  | ---  | ---   | ---   | ---                          | ---                                | --- |
| Variscite              |                  | Variscite                                   | Page 382   | None   | N/A   | N/A   | B.1 & B.2.10                 | No                                 |     |
| Verdite                |                  | Verdite                                     | Page 383   | None   | N/A   | N/A   | B.1 & B.2.10                 | No                                 |     |
| Vesuvianite            |                  | Vesuvianite, or Idocrase                    | Page 344   | None   | N/A   | N/A   | B.1 & B.2.10                 | No                                 |     |
| Vesuvianite...<br>cont | Californite      | Californite                                 | Page 344-5   | None   | N/A   | N/A   | B.1 & B.2.10                 | No                                 |     |
| Zinc Blende            |                  | See Sphalerite                              | ---  | ---  | ---   | ---   | ---                          | ---                                |     |
| Zircon                 |                  | Zircon (with colour prefix)                 | Page 176-83  | Heated to produce red and colourless<br><br>(always)                                     | unstable  | GENERAL INFORMATION   | B.1, B.2.2, B.2.6 & B.2.10   | No                                 |     |
|                        | (blue)           | Blue Zircon, or Starlite                    | Page 176-83  | Heated to produce blue<br><br>(always)   | unstable  | GENERAL INFORMATION   | B.1, B.2.2, B.2.6 & B.2.10   | No                                 |     |
|                        | (other colours)  | Zircon (with colour prefix)                 | Page 176-83  | None   | N/A   | N/A   | B.1, B.2.2 & B.2.10          | No                                 |     |

| Material      | Variety / type                       | Commercial name              | Best trade reference<br>(Gems, their Sources, Descriptions & Identification) | Possible modification type (see clause 4.6 or 4.7) & (frequency of use <sup>1, 3</sup> ) | Stability<br><u>Variable</u> ,<br><u>Stable</u> , or<br><u>Unstable</u> | Requires <u>General Information</u> or <u>Specific Information</u><br>(see clause 4.6 or 4.7) | Care advice<br>(see Annex B) | Available as a synthetic |
|---------------|--------------------------------------|------------------------------|--|--|---|---|------------------------------|--------------------------|
| Zircon...cont | (other colours)                      | Zircon (with colour prefix)  | Page 176-83  | Heated to improve yellow (commonly) or green (occasionally)                              | unstable  | GENERAL INFORMATION   | B.1, B.2.2, B.2.6 & B.2.10   | No                       |
| Zoisite       | Blue to violet                       | Tanzanite                    | Page 387-8   | None   | N/A   | N/A   | B.1 & B.2.10                 | No                       |
|               | Blue to violet                       | Tanzanite                    | Page 387-8   | Heated (almost always)   | stable  | GENERAL INFORMATION   | B.1 & B.2.10                 | No                       |
|               | <i>Transparent other colours</i>     | Tanzanite with colour prefix | Page 387-8   | None   | N/A   | N/A   | B.1 & B.2.10                 | No                       |
|               | Thulite                              | Thulite                      | Page 387-8   | None   | N/A   | N/A   | B.1                          | No                       |
|               | <i>Non transparent other colours</i> | Zoisite with colour prefix   | Page 387-8   | None   | N/A   | N/A   | B.1                          | No                       |

## **Annex B** (normative)

### **Care requirements (Also see Annex A )**

#### **B.1 Normal care**

With all gemstones and organic substances avoid rough handling and when not in wear, keep items of jewellery separate to avoid scratches. Clean with warm soapy water and gentle brushing. Ultrasonic cleaners should only be used with caution.

#### **B.2 Special Care**

In addition to normal care, some gemstones and organic substances have special care requirements.

##### **B.2.1**

Some stones are prone to scratching due to low hardness. Wear them with care.

##### **B.2.2**

Some stones cleave or fracture easily or are prone to the effects of brittleness e.g. rubbed facet edges. Wear them with care.

##### **B.2.3**

Some stones are porous. Do not allow contact with coloured fluids.

##### **B.2.4**

Some stones are prone to crack due to loss of structural water. Keep away from heat and drying environments.

##### **B.2.5**

Some stones are prone to damage due to thermal shock. Do not expose them to extreme temperature changes.

### **B.2.6**

Some stones fade or revert to original colour when exposed to strong light. Do not wear or leave them for extended periods under these conditions.

### **B.2.7**

Some stones fade rapidly unless kept in the dark.

### **B.2.8**

Some stones are particularly susceptible to attack by acids. Keep them away from acids.

### **B.2.9**

Some organic substances dissolve upon contact with solvents such as nail varnish remover. Keep them away from all solvents and other strong chemicals.

### **B.2.10**

Some stones are susceptible to damage from ultrasonic cleaning. Do not expose them to ultrasonic cleaning.

### **B.2.11**

Modifications to stones with dye, oil, resin, wax, or plastic are not permanent. Keep away from all solvents (including various dish-washing liquids), chemicals and heat.

### **B.2.12**

Fillers in voids/cavities, fissures, and/or open fractures, such as glass, plastic or hardened resin, can scratch more easily than the host stone or be more vulnerable to damage from heat or some acids (e.g. hydrofluoric). Keep away from all chemicals, heat or abrasives.

### **B.2.13**

Stones with superficial colour (or phenomena) surface layers are not suitable for re-cutting or re-polishing.

### **B.2.14**

Coatings on stones are often easily removed by the action of solvents, heat or abrasives. Keep away from all solvents, heat or abrasives. Coated stones are not suitable for re-cutting or re-polishing.

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