



THE WORLD JEWELLERY CONFEDERATION

2012-1

2012-12-30

CIBJO/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)

CIBJO standard
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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, in 2009 it was once again reorganized and officially named “CIBJO, The World Jewellery Confederation”. Today CIBJO, which is domiciled in Switzerland, is a non-profit confederation of national and international trade associations including commercial organisations involved in the jewellery supply chain. It now 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, consider issues which are of concern to the trade worldwide and to communicate proactively with members. 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 members to support and implement its standards, and to protect the trust of the public in the industry.

The work of CIBJO is accomplished through Committees, Commissions and Sectors. Committees and Commissions consider standards for use in the jewellery supply chain. Sectors represent levels of trade in the jewellery industry. Sectors and commissions advise the Executive Committee on current trade practices and issues that affect the jewellery industry.

Three independent sectors exist within the confederation:

Sector A - The Products Sector

Sector B - The Supply chain Sector

Sector C - The Service Sector

The Executive Committee may appoint Commissions that consider detailed issues. At present these are:

Coloured Stone

Diamond Ethics

Gemmological

Pearl

Marketing & Education

Precious Metals

World Jewellers Vigilance

The Commissions for Diamonds, Gemstones, Pearls and Precious Metals have collated the guidelines, which present the accepted trade practices for applying descriptions to these materials. It is in the best interest of all those concerned to be aware of them.

The Sectors and Commissions will propose changes in the standards, also known as the Blue Books, to the Executive Committee. After review the Executive Committee will submit the accepted proposals for adoption to the Board of Directors and if approved they will notify the assembly of delegates of the changes at the annual congress. Furthermore it is our mutual responsibility to support these recommendations, which concern all professional people connected with diamonds, gemstones, pearls and precious metals. CIBJO Standards are subject to government regulations in the respective jurisdictions of CIBJO members.

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

CIBJO Secretariat:

CIBJO, The World Jewellery Confederation
Piazzale Carlo Magno, 1
20149 Milano, Italy

Tel: +39-02-4997-7098 / 7097 / 6187 Fax: + 39 02- 4997-7059

E-mail: cibjo@cibjo.org

Web site: www.cibjo.org

Introduction

GEMSTONES, ORGANIC SUBSTANCES AND ARTIFICIAL PRODUCTS — TERMINOLOGY AND CLASSIFICATION

1 Scope

The terminology and classification of gemstones (5.25), organic substances (5.38) and artificial products (4.2) 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 - CIBJO recognises that its standards are subject to government regulations in the respective jurisdiction of CIBJO members.

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

The Gemmological Laboratory 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

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

The Precious Metal 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

3 Classification of materials

The jewellery industry and trade recognize two categories of material: natural materials (5.34) and artificial products (4.2).

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 objects d'art (5.35). (See 5.25 and 5.39)

4.1.2. Organic substances

Natural materials (5.34) of **organic** origin used in jewellery or *objets d'art* (5.35).

4.1.3. Modified gemstones and organic substances

Precious stones (5.41), gemstones (5.25), ornamental stones (5.39) and organic substances (5.38) are often modified (5.33) 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 (4.1.3.2) of their modifications

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 . Substances present in fissures that do not add colour

Gemstones (5.25) and organic substances (5.38) modified by the presence within fissures (5.20) of agents such as oil, wax, resin, polymer or any substances, other than glass that do not add colour to the gemstone or organic substance, when viewed at 10 power magnification by a trained observer.

4.1.3.1.2 . Surface waxing

Gemstones (5.25) and organic substances (5.38) modified superficially with a colourless agent such as oil, wax, organic fluid or polymer.

4.1.3.1.3 . Heating.

Gemstones (5.25) and organic substances (5.38) permanently modified by heating

(5.27).

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 (5.25) and organic substances (5.38), other than pearls and cultured pearls, modified by bleaching (5.8).

4.1.3.2 . Gemstones and organic substances requiring specific information on their modification

Gemstones and organic substances requiring specific information on their modifications are 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 (5.25) and organic substances (5.38) with a colour altered by artificial irradiation (5.3).

4.1.3.2.2 . Diffusion treatment

Gemstones (5.25) and organic substances (5.38) 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 (5.16).

4.1.3.2.3 . Dyes or other colouring agents

Gemstones (5.25) and organic substances (5.38) with a colour altered by dyes (5.18) or other colouring agents, or stones darkened by the “sugar/acid” process.

4.1.3.2.4 . Filled fractures or cavities

Gemstones (5.25) and organic substances (5.38) modified by the filling (5.19) of open fractures (5.23) or cavities (5.10)

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 (5.25) and organic substances (5.38) modified by impregnation (5.29) 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 (5.25) and organic substances (5.385.12) modified by coating (5.12).

4.1.4. Trade codes

Trade codes (5.51) shall only be used within the industry; they are not to be used for the consuming public. The codes are intended to facilitate the insertion of vital information a) on tags attached to merchandise, b) on invoices, and or c) on other commercial documents that are used within the trade.

For definitions and instructions on how to use refer to annex A

4.2 Artificial products

4.2.1. Products that are partially or completely made by man.

4.2.1.1 . Reconstructed stones

Artificial products (5.4) manufactured by melting (without subsequent crystallization), fusing natural materials to form a coherent whole.

4.2.1.2 . Composite stones

Artificial products (5.4) 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.

4.2.1.3 . Synthetic stones

Artificial products (5.4) having essentially the same chemical composition, physical properties and structure as that of their naturally occurring counterparts.

4.2.2. Artificial stones

Artificial crystalline products with no known natural counterparts.

4.2.2.1 . Imitations

Artificial products (5.4) that imitate the appearance of precious stones (5.41), gemstones (5.25), ornamental stones (5.39) or organic substances (5.38) 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 (5.43), gemstones (5.25), ornamental stones (5.41), organic substances (5.40), reconstructed stones (5.45), composite stones (5.15), synthetic stones (4.11), artificial stones (5.5) and imitations (5.28) 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 (5.11) 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 (5.7) 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” (5.15) or “cultivated” shall only be used for cultured pearls.

4.3.6. The term “semi-precious”

The term “semi-precious” (5.45) is misleading and shall not be used.

4.3.7. Weight

4.3.7.1 . Metric carat

The weight (5.56) 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” (5.42), “precious” (5.41), “genuine” (5.26) or “natural” (5.34) shall only be used to refer to or designate natural materials

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 where geographically mined or harvested (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 centres 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 (5.25) and organic substances (5.38).

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

4.5.4. Chatoyancy and asterism

Stones that display chatoyancy (5.11) or asterism (5.7) (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, 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 (5.25) and organic substances (5.38) 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 (5.25) and organic substances (5.38) 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).

Members of the trade shall have all information readily available on which modification a given type of gemstone or organic substance has generally undergone and to submit such information to their customers. Commercial documents accompanying and describing a gemstone or organic substance requiring general information on its modification shall include a comment on this modification.

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

4.7.1. Description

A gemstone (5.25) or organic substance (5.38) 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” (5.31), “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 and 5.28). 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”, “cultured” etc.

Do not use the adjectives “real” (5.42), “precious” (5.41), “genuine” (5.26), “natural” (5.34), “cultured” (5.15) 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 (5.43) 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 (5.14) 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” (5.17) or “triplet” (5.53) or “composite” (5.14) 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 (5.50) 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.

4.11.2.1. The term “synthetic” may be replaced by the terms “laboratory-grown” or “laboratory created”

NOTE - In the event that the national jewellery association, which is a member of CIBJO, deems that there is no acceptable local direct translation of the English terms ‘laboratory-

grown' or 'laboratory-created,' then only the translation of the term 'synthetic' should be used.

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 (5.50) 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" (5.4) or "artificial stone" (5.5) (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" (5.4) or "artificial stone" (5.5) to describe any artificial stone except as allowed for in clause 4.8.1.

4.13 . Nomenclature – Imitations

4.13.1 Description

An imitation (5.28) 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 Aventurescence

an optical phenomenon a gem material exhibits when it displays bright or strongly coloured reflections of tiny platelets or flakes as the gemstone is turned.

5.3 Artificial irradiation

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

5.4 Artificial products

products which are partially or completely made by man.

5.5 Artificial stones

artificial crystalline products with no known natural counterparts.

5.6 Assembled stones

see composite (5.14)

5.7 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.

5.8 Bleaching

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

5.9 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.

5.10 Cavity

a hollow or pitted area (a hole) within a stone reaching the surface. See also: Fracture (5.23) and Fissure (5.20).

5.11 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.

5.12 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.

5.13 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).

5.14 Composite stones

artificial products (5.4) 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.

5.15 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.

5.16 Diffusion

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

5.17 Doublet

a composite stone consisting of two parts.

5.18 Dyeing

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

5.19 Filling

to occupy the whole or part of a cavity (5.10), fissure (5.20) or fracture (5.23); to pervade; to spread throughout; to occupy completely; make full.

5.20 Fissure

a very narrow opening; a fine fracture (5.23).

5.21 Fluid

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

5.22 Foiling

the application of a very thin layer of highly reflective metal applied to all or part of the pavilion side or at the back of a gemstone with the intent of reflecting light back to the viewer's eye. This reflective surface can be "mirror like" and possibly coloured.

5.23 Fracture

an opening; a crack

5.24 Gem

the term Gem, when used in jewellery, shall only be used for gemstones and organic substances of natural origin (see clause 5.25)

Note: Only the term "Gem" shall be qualified with the terms "real", "precious", "genuine" and "natural"

5.25 Gemstones

natural inorganic materials, with the exceptions of metals, used in jewellery or *objets d'art* (5.35). For the purposes of this standard all clauses and examples referring to gemstones apply also to precious stones and ornamental stones.

5.26 Genuine

actually possessing the alleged or apparent attribute or character.

5.27 Heating

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

5.28 Imitations

artificial products (5.4) 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.

5.29 Impregnation

to fill throughout; saturate.

5.30 Impregnated

see Impregnation.

5.31 Irradiated

exposed to or treated with radiation.

5.32 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.

5.33 Modified gemstones and organic substances

gemstones (5.25) or organic substances (5.38) changed in form or character by means of other than cutting and polishing, (4.1.3).

5.34 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.

5.35 Objets d'art

an object considered to be of artistic worth.

5.36 Oiling

A process that involves oil entering fractures/fissures in gemstones to diminish their appearance.

5.37 Opalescence

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

5.38 Organic substances

natural products of animal or plant origin used in jewellery or *objets d'art* (5.35).

5.39 Ornamental stones

natural inorganic and organic substances, with the exceptions of metals, used in jewellery or *objets d'art* (5.35). For the purposes of this standard all clauses and examples referring to gemstones apply also to ornamental stones.

5.40 Phenomenal stones

stones exhibiting asterism (5.7), chatoyancy (5.11), colour change (5.13) etc.

5.41 Precious stones

natural inorganic materials, with the exceptions of metals, used in jewellery or *objets d'art* (5.35). For the purposes of this standard all clauses and examples referring to gemstones (5.25) apply also to precious stones.

5.42 Real

genuine 5.26; not artificial (5.4, 5.5.)

5.43 Reconstructed stones

artificial products (5.4) manufactured by melting (without subsequent crystallization) or fusing natural materials to form a coherent whole.

5.44 Simulant

See imitations (5.28)

5.45 Semi-precious

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

5.46 Special care information

gemstones and organic substances that require special care to preserve the appearance of the gemstone resulting from the modification/treatment (4.7).

5.47 Stability

a measure of the ability of gemstones (5.25) and organic substances (5.38) to maintain their appearance.

5.48 Stones

natural materials and artificial products used in jewellery or *objets d'art* (5.35), with the exception of metals.

5.49 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.

5.50 Synthetic stones

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

5.51 Trade Codes

A list used within the trade, consisting of one or more letters, for labelling the modification of gemstones (5.25) and organic substances (5.38) (Annex A)

5.52 Treated

the prefix 'treated' is added to the name of gemstones (5.25) or organic substances (5.38) 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.

5.53 Triplet

a composite stone (5.14) consisting of three parts.

5.54 Void

a cavity (5.10) that contains no matter.

5.55 Waxing

the application of a colourless wax or similar products to, or near, the surface of gemstones and organic substances.

5.56 Weight

mass of a gemstone (5.25), stone (5.48) or organic substances (5.38)

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, 5th ed. Butterworths.*

3 None: Unknown: Rarely: Uncommon: Occasionally: Common: Usually: Always.

4 Stable: Unstable: Variable.

5 Trade Codes – Trade Codes shall only be used within the industry, methods of gemstone treatment disclosure shall be in accordance with Clause (4.1.3) Modified Gemstones, Clause (4.1.4) Trade codes, Clause (4.6) Gemstones and organic substances requiring general information on their modifications, and Clause (4.7) Gemstones and organic substances requiring specific information on their modifications.

Trade Codes

N No modification (or currently has no known modification process).

H Heating (5.27)

O Oil/Resin (5.36)

W Waxing (5.55)

- I** Impregnation (5.29) (with colourless foreign substances other than oil /resin)¹
- U** Diffusion (5.16)
- B** Bleaching (5.8)
- D** Dyeing (5.18)
- F** Filling (5.19)
- C** Coating (5.12)
- R** Irradiation (5.31)
- SC** Special Care (5.46)

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3})	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Actinolite-Tremolite	Actinolite	Actinolite	Page 309	None	N/SC	N/A	N/A	1. 2.a & .i	No
	Actinolite	Actinolite	Page 309	Dyed (rarely)	D/SC	Unstable,	Specific information	1, 2.a, i & j	No
	Nephrite	Nephrite, or Nephrite-jade	Page 309	None	N	N/A	N/A	1. 2.i	No
	Nephrite	Nephrite, or Nephrite-jade	Page 309	Dyed (rarely)	D/SC	Unstable	Specific information	1. 2.i & j	No

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Actinolite-Tremolite.... Cont.	Nephrite	Nephrite, or Nephrite-jade	Page 309	Impregnated with near-colourless oil, wax and resin	I/SC	unstable	Specific information	1. 2.i & j	No
	Nephrite Cat's eye	Nephrite Cat's eye		None	N	N/A	N/A	1.	No
	Tremolite	Tremolite	Page 380	None	N	N/A	N/A	1.	No
	(with red to violet colour due to manganese) (with green colour due to chromium)	Hexagonite	Page 380	None	N/SC	N/A	N/A	1. 2.a & i	No
	(with green colour due to chromium)	Chrome tremolite	Page 380	None	N/SC	N/A	N/A	1. 2.a & i	No
Albite		See Feldspar	---	---		---	---	---	---
Almandine		See Garnet	---	---		---	---	---	---
Amber		Amber	Page 570-7	None	N/SC	N/A	N/A	1. 2.a, b, i, j & m	No
		Amber	Page 570-7	Heated (usually)	H/SC	stable	General information	1, 2.a, b, i, j & m	No
		Amber	Page 570-7	Dyed or surface treated to add colour (rarely)	D/SC	unstable	Specific information	1. 2.a, b, i, j & m	No
Amblygonite-Montebasite	Amblygonite	Amblygonite	Page 312	None	N/SC	N/A	N/A	1. 2.e & j	No
	Montebasite	Montebasite (Yellow)	Page 312	None	N/SC	N/A	N/A	1. 2.e & j	No
	Montebasite	Montebasite	Page 312	Green produced by irradiation	R/SC	Presently unknown	Specific information	1. 2.e & j	
Ammonite		Ammonite	Page 299-300	---		---	---	---	---
	Ammonite Shell (with iridescence)	Ammolite	Page 299	None	N	N/A	N/A	1. 2.a, b, h, & j	No

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Ammonite...cont.	Ammonite Shell (with iridescence)	Ammolite	Page 299	Impregnated with near-colourless hardened substances (commonly)	I/SC	unstable	Specific information	1. 2.a, b, h, j, k & m	No
Andalusite		Andalusite	Page 313	None	N	N/A	N/A	1.	No
	Chiastolite	Chiastolite	Page 314	None	N	N/A	N/A	1.	No
Andradite		See Garnet	---	---		---	---	---	---
Anthophyllite-Gedrite	Nuummite	Nuummite	Page 355	None	N/SC	N/A	N/A	1. 2.a	No
Antigorite		See Serpentine	---	---		---	---	---	---
Apatite		Apatite	Page 315	None	N/SC	N/A	N/A	1. 2.a & j	No
		Apatite	Page 315	Heated (Rarely)	H/SC	Stable	General information	1. 2.a & j	No
Aragonite		Aragonite	Page 308	None	N/SC	N/A	N/A	1. 2.a, h & j	No
	Fibrous aragonite	Aragonite Satin Spar	Page 308	None	N/SC	N/A	N/A	1. 2.a, h & j	No
Axinite		Axinite	Page 317	None	N/SC	N/A	N/A	1. 2.b & j	No
Azurite		Azurite, or Chessylite	Page 318	None	N/SC	N/A	N/A	1. 2.a, b, h & j	No
		Azurite, or Chessylite	Page 318	Surface near-colourless waxing (Commonly)	W/SC	unstable	General information	1. 2.a, .2, h, j & k	No
		Azurite, or Chessylite	Page 318	Impregnated with near-colourless oil, wax or resin (Rarely)	I/SC	unstable	Specific information	1. 2.a, .2, h, j & k	No
Azurite-Malachite	Azurite-Malachite	Azurite-Malachite	Page 318, 351	None	N/SC	N/A	N/A	1. 2.a & h	No
	Azurite-Malachite	Azurite-Malachite	Page 318, 351	Surface-waxing (Commonly)	W/SC	unstable	General information	1 2.a, h, & k	No

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3})	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Azurite-Malachite....cont.	Azurite-Malachite	Azurite-Malachite	Page 318, 351	Impregnated with near-colourless plastic or hardened resin (Rarely)	I/SC	unstable	Specific information	1 2.a, h, & k	No
Benitoite		Benitoite	Page 320	None	N/SC	N/A	N/A	1 2.j	No
Beryl	Emerald (green colour due to chromium +/- vanadium)	Emerald	Page 104	None (Very rarely)	N/SC	N/A	N/A	1 (If there are fissures or fractures) 2.b & j	Many
	Emerald (green colour due to chromium +/- vanadium)	Emerald	Page 104	near-colourless oils, wax and resins in fissures (usually)	O/SC	unstable	General information	1. 2.b, j & k	No
	Emerald (green colour due to chromium +/- vanadium)	Emerald	Page 104	Dyed with the use of coloured oils (occasionally)	D/SC	unstable	Specific information	1. 2.b, j & k	No
	Emerald (green colour due to chromium +/- vanadium)	Emerald	Page 104	Open fractures or cavities filled with hardened resins (commonly)	O/SC	unstable	Specific information	1. 2.b, j, k & l	No
	Aquamarine	Aquamarine	Page 124	None (Rarely)	N	N/A	N/A	1.	Some
	Aquamarine	Aquamarine	Page 124	Heated (usually)	H	stable	General information	1.	Some
	Goshenite	Goshenite, or Colourless Beryl	Page 103	None	N	N/A	N/A	1.	No
	Heliodor	Heliodor, or yellow Beryl, or Golden Beryl	Page 128	None	N	N/A	N/A	1.	Few
	Heliodor	Heliodor, or yellow Beryl, or Golden Beryl	Page 128	Irradiated (usually)	R/SC	variable	Specific information	1. 2.f	Few
	Morganite	Morganite, or Pink Beryl	Page 128	None	N	N/A	N/A	1.	Few
	Morganite	Morganite, or Pink Beryl	Page 128	Heated (commonly)	H	stable	General information	1.	Few
	Morganite	Morganite, or Pink Beryl	Page 128	Irradiated (commonly)	R /SC	stable	Specific information	1.	Few

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Beryl....cont.	Blue Beryl (Maxixe)	Blue Beryl (Maxixe)	Page 127	None	N/SC	unstable	N/A	1. 2.g	No
	Blue Beryl (Maxixe-type)	Blue Beryl (Maxixe-type)	Page 127	Blue (Maxixe type) irradiated (always)	R/SC	unstable	Specific information	1. 2.g	No
	(other colours)	Beryl with colour prefixes e.g., Green Beryl, Red Beryl etc.	page 103	None	N	N/A	N/A	1.	Few
Beryllonite		Beryllonite	Page 321	None	N/SC	N/A	N/A	1. 2.b, & j	No
Brazilianite		Brazilianite	Page 321	None	N/SC	N/A	N/A	1. 2.b, & j	No
Calcite		Calcite	Page 307	None	N/SC	N/A	N/A	1. 2.a, b, h & j	No
	Fibrous Calcite	Calcite Satin Spar	Page 307	None	N/SC	N/A	N/A	1. 2.a, b, c, h & j	No
	Massive Calcite	Marble	Page 307	None	N/SC	N/A	N/A	1. 2.a, c, h & j	No
	Massive Calcite	Marble	Page 307	Surface near-colourless waxing (commonly)	W/SC	unstable	General information	1. 2.a, c, h, j & k	No
	Massive Calcite	Marble	Page 307	Dyed (commonly)	D/SC	unstable	Specific information	1. 2.a, c, h, j & k	No
Cassiterite		Cassiterite	Page 323	None	N	N/A	N/A	1. 2.j	No
Cerussite		Cerussite	Page 325	None	N/SC	N/A	N/A	1. 2.a, h & j	No
Charoite		Charoite	Page 325	None	N/SC	N/A	N/A	1. 2.j	No
Chessylite		See Azurite	---	---		---	---	---	---
Chrysoberyl		Chrysoberyl	Page 132	None	N	N/A	N/A	1.	Some
	Chrysoberyl Cat's-eye, Cymophane	Chrysoberyl Cat's-eye, or Cat's-eye	Page 132	None	N	N/A	N/A	1.	Few

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Chrysoberyl.... Cont.	Chrysoberyl Cat's-eye, Cymophane	Chrysoberyl Cat's-eye, or Cat's-eye	Page 132	Irradiated to change colour (uncommon)	R	stable	Specific information	1, some may be radioactive	Few
	Alexandrite (definite colour change due to chromium)	Alexandrite	Page 132	None	N	N/A	N/A	1.	Many
	Alexandrite (definite colour change due to chromium)	Alexandrite	Page 132	near-colourless oils, wax and resins in fissures (rarely)	O/SC	unstable	General information	1. 2.b, j & k	No
	Alexandrite Cat's-eye	Alexandrite Cat's-eye	Page 132	None	N	N/A	N/A	1.	Some
Chrysocolla		Chrysocolla	Page 326	None	N/SC	N/A	N/A	1. 2.a, b, c, & k	No
		Chrysocolla	Page 326	Surface near-colourless waxing (occasionally)	W/SC	unstable	General information	1. 2.a, b, c, j & k	No
		Chrysocolla	Page 326	Impregnation with near-colourless plastic or hardened resin (occasionally)	I/SC	unstable	Specific information	1. 2.a, b, c, j & k	No
Chrysotile		See Serpentine	---	---		---	---	---	---
Conch Pearl		See the Pearl Book	---	---		---	---	---	---
Copal		Copal	Page 574-5	None	N/SC	N/A	N/A	1. 2.a, i, j & m	No
		Copal	Page 574-5	Heat (usually)	H/SC	stable	General information	1. 2.a, i, j & m	No
		Copal	Page 574-5	Dyed or surface treated to add colour (rarely)	D/SC	unstable	Specific information	1. 2.a, i, j & m	No
Coral	White	White Coral	Page 559-564	None	N/SC	N/A	N/A	1. 2.a, c, h & j	No
	White	White Coral	Page 559-564	Bleached (commonly)	B/SC	stable	General information	1. 2.a, c, h & j	No

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Coral....cont.	White	White Coral	Page 559-564	Impregnated with near-colourless plastic or hardened resins (commonly)	I/SC	unstable	Specific information	1. 2.a, c, h, j & k	No
	Pink	Pink Coral	Page 559-564	None	N/SC	N/A	N/A	1. 2.a, c, h & j	No
	Pink	Pink Coral	Page 559-564	Surface near-colourless waxing (commonly)	W/SC	unstable	General information	1. 2.a, c, h, j & k	No
	Pink	Pink Coral	Page 559-564	Dyed (commonly)	D/SC	unstable	Specific information	1. 2.a, c, h, j & k	No
	Pink	Pink Coral	Page 559-564	Impregnated with near-colourless plastic or hardened resins (commonly)	I/SC	unstable	Specific information	1. 2.a, c, h, j & k	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/SC	N/A	N/A	1. 2.a, c, i & j	No
	Golden	Golden Coral	Page 559-564	Bleached from black coral (usually)	B/SC	stable	General information	1. 2.a, c, i & j	No
	Black	Black Coral	Page 559-564	None	N/SC	N/A	N/A	1. 2.a, c, i & j	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	N/A	N/A	1.	No
Corundum	Ruby	Ruby	Page 73-102	None	N	N/A	N/A	1.	Many
	Ruby	Ruby	Page 73-102	Heated (usually)	H	stable	General information	1.	Occasionally
	Ruby	Ruby	Page 73-102	Flux assisted healing of fissures (commonly)	HF	stable	General information	1.	Occasionally

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Corundum...cont.	Ruby	Ruby	Page 73-102	The healing of fissures (commonly)	HF	stable	General information	1.	Occasionally
	Ruby	Ruby	Page 73-102	Glass filled open fractures and cavities (commonly)	F/SC	unstable	Specific information	1. 2.h & l	Very unusual
	Ruby	Ruby	Page 73-102	Lead glass filled open fractures and cavities (commonly)	F/SC	unstable	Specific information	1. 2.h & l	No
	Ruby	Ruby	Page 73-102	Dyed (occasionally)	D/SC	unstable	Specific information	1. 2.j & k	Very unusual
	Ruby	Ruby	Page 73-102	Introduction/diffusion of certain element(s) during the heating process (rarely)	U	stable	Specific information	1. 2.m (Shallow)	Very unusual
	Ruby	Ruby		Near-colourless oil or resin in fissures (occasionally)	O/SC	unstable	Specific information	1. 2.b, j & k	No
	Ruby	Ruby		Coloured oil in fissures (occasionally)	D/SC	unstable	Specific information	1. 2.b, j & k	No
	Star Ruby	Star Ruby	Page 73-102	None	N	N/A	N/A	1.	Many
	Star Ruby	Star Ruby	Page 73-102	Heated (rarely)	H	stable	General information	1.	No
	Star Ruby	Star Ruby	Page 73-102	Dyed (rarely)	D/SC	unstable	Specific information	1. 2.b, j & k	No
	Star Ruby	Star Ruby	Page 73-102	Near-colourless oil in fissures (occasionally)	O/SC	unstable	General information	1. 2.b, j & k	No

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Corundum...cont	Star Ruby	Star Ruby	Page 73-102	Introduction/diffusion of certain element(s) during the heating process (rarely)	U/SC	stable	Specific information	1. 2.m (Shallow)	No
	Star Ruby	Star Ruby	Page 73-102	Lead glass filled open fractures and cavities (commonly)	F/SC	unstable	Specific information		No
	Sapphire (blue)	Sapphire	Page 73-102	None	N	N/A	N/A	1.	Many
	Sapphire (blue)	Sapphire	Page 73-102	Heated (usually)	H	stable	Specific information	1.	Some
	Sapphire (blue)	Sapphire	Page 73-102	Flux assisted healing of fissures (rarely)	HF	stable	Specific information	1. 2.l	No
	Sapphire (blue)	Sapphire	Page 73-102	Glass filled open fractures and cavities (rarely)	F/SC	unstable	Specific information	1. 2.l	No
	Sapphire (blue)	Sapphire		Introduction/diffusion of certain element(s) during the heating process (commonly)	U/SC	stable	Specific information	1. 2.m (Shallow)	Very unusual
	Sapphire (blue)	Sapphire		Near-colourless oil or resin in fissures (occasionally)	O/SC	unstable	General information	1. 2.b, j & k	No
	Star Sapphire (blue)	Star Sapphire	Page 73-102	None	N	N/A	N/A	1.	Many
	Star Sapphire (blue)	Star Sapphire	Page 73-102	Introduction/diffusion of certain element(s) during the heating process (occasionally)	U	stable	Specific information	1. 2.m (Shallow)	Very unusual
	Star sapphire (other colours)	Star Sapphire with colour prefix	Page 73-102	None	N	N/A	N/A	1.	Some

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Corundum...cont.	Star sapphire (other colours)	Star Sapphire with colour prefix	Page 73-102	Heated (occasionally)	H	stable	General information	1.	No
	Star sapphire (other colours)	Star Sapphire with colour prefix	Page 73-102	Introduction/diffusion of certain element(s) during the heating process (rarely)	U/SC	stable	Specific information	1. 2.m (Shallow)	Very unusual
	Padparadscha - subtle mixture of pink and orange	Padparadscha, or Pink-Orange Sapphire	Page 73-102	None	N	N/A	N/A	1.	Many
	Padparadscha - subtle mixture of pink and orange	Padparadscha, or Pink-Orange Sapphire	Page 73-102	Heated (commonly)	H	stable	General information	1.	Very unusual
	Pink-Orange	Pink-Orange Sapphire		Irradiated (Rarely)	R/SC	unstable	Specific information	1. 2.m	Very unusual
	Pink-Orange	Pink-Orange Sapphire		Introduction/diffusion of certain element(s) during the heating process (commonly)	U/SC	stable	Specific information	1. 2.m (Shallow)	Very unusual
	Orange	Orange Sapphire		None	N	N/A	N/A	1.	Very unusual
	Orange	Orange Sapphire	Page 73-102	Heated (commonly)	H	stable	General information	1.	Very unusual
	Orange	Orange Sapphire	Page 73-102	Introduction/diffusion of certain element(s) during the heating process (usually)	U	stable	Specific information	1. 2.m (Shallow)	Very unusual
	Orange	Orange Sapphire		Irradiated (Rarely)	R/SC	unstable	Specific information	1. 2.m (Shallow)	Very unusual
	Yellow	Yellow	Page 73-102	None	N	N/A	N/A	1.	Many
	Yellow	Yellow		Irradiated (unusually)	R/SC	unstable	Specific information	1. 2.m	Very unusual

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Corundum...cont.	Yellow	Yellow	Page 73-102	Heated (commonly)	H	stable	General information	1.	Very unusual
	Yellow	Yellow	Page 73-102	Introduction/diffusion of certain element(s) during the heating process (commonly)	U	stable	Specific information	1.	Very unusual
	(other colours)	Sapphire with colour prefix, or Corundum with colour prefix	Page 73-102	None	N	stable (Some yellow are unstable)	N/A	1.	Many
	(other colours)	Sapphire with colour prefix, or Corundum with colour prefix	Page 73-102	Heated (occasionally)	H	stable	General information	1.	Very unusual
	(other colours)	Sapphire with colour prefix, or Corundum with colour prefix		Introduction/diffusion of certain element(s) during the heating process (commonly)	U/SC	stable	Specific information	1. 2.m (Shallow)	Very unusual
	(other colours)	Sapphire with colour prefix, or Corundum with colour prefix	Page 73-102	Irradiation to produce yellow colour (rarely)	R/SC	unstable	Specific information	1. 2.g	No
Danburite		Danburite	Page 328	None	N	N/A	N/A	1. 2.j	No
Datolite		Datolite	Page 329	None	N	N/A	N/A	1. 2.j	No
Diamond		See the Diamond Book	---	---		---	---	---	---
Diaspore		Diaspore	Page 329	None	N/SC	N/A	N/A	1. 2.b & j	No
Diopside		Diopside	Page 330	None	N/SC	N/A	N/A	1. 2.b & j	No

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Diopside....cont.	Chrome Diopside (green color due to chromium)	Chrome Diopside	Page 331	None	N/SC	N/A	N/A	1. 2.b & j	No
	Violane (purple)	Violan, or Violane	Page 331	None	N/SC	N/A	N/A	1. 2.b & j	No
	Star Diopside	Star Diopside	Page 331	None	N/SC	N/A	N/A	1. 2.b & j	No
Disthene		See Kyanite	---	---		---	---	---	---
Dumortierite		Dumortierite	Page 332	None	N	N/A	N/A	1.	No
Enstatite-Hypersthene	Enstatite	Enstatite	Page 333	None	N/SC	N/A	N/A	1. 2.b & j	No
	(with green colour due to chromium)	Chrome Enstatite	Page 334	None	N/SC	N/A	N/A	1. 2.b & j	No
	Bronzite	Bronzite	Page 322	None	N/SC	N/A	N/A	1. 2.b & j	No
Enstatite-Hypersthene...	Hypersthene	Hypersthene	Page 348	None	N/SC	N/A	N/A	1. 2.b & j	No
Epidote		Epidote	Page 335	None	N/SC	N/A	N/A	1. 2.b & j	No
Euclase		Euclase	Page 336	None	N/SC	N/A	N/A	1. 2.b & j	No
Feldspar (group)			---	---		---	---	---	---
Albite		Albite	Page 213	None	N/SC	N/A	N/A	1. 2.b & j	No
Andesine	Andesine (red)	Andesine	Page 216	None (rare)	N/SC	N/A	N/A	1. 2.b & j	No
	Andesine (red)	Andesine	Page 216	Cu diffusion (usually)	U/SC	stable	Specific information	1. 2.b & j	No
Labradorite		Labradorite	Page 216	None	N/SC	N/A	N/A	1. 2.b & j	No
		Labradorite	Page 216	Cu diffusion (usually)	U/SC	stable	Specific information	1. 2.b & j	No
		Labradorite	Page 216	Surface near-colourless waxing (occasionally)	W/SC	unstable	General information	1. 2.b, j & k	No

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Labradorite....cont.	Labradorite with labradorescence	Labradorite, or Spectrolite	Page 216	None	N/SC	N/A	N/A	1. 2.b & j	No
	Labradorite with labradorescence	Labradorite, or Spectrolite	Page 216	Surface near-colourless waxing (occasionally)	W/SC	unstable	General information	1. 2.b, j & k	No
	Labradorite with aventurescence	Labradorite Sunstone	Page 216	None	N/SC	N/A	N/A	1. 2.b & j	No
Microcline	Amazonite	Amazonite	Page 211	None	N/SC	N/A	N/A	1. 2.b & j	No
	Amazonite	Amazonite	Page 211	near-colourless waxed or oiled (usually)	W/SC or O/SC	unstable	General information	1. 2.b, j & k	No
	Amazonite	Amazonite	Page 211	Impregnated with near-colourless plastic or hardened resins (occasionally)	I/SC	unstable	Specific information	1. 2.j & k	No
Oligoclase		Oligoclase	Page 215	None	N/SC	N/A	N/A	1. 2.b & j	No
	Oligoclase with aventurescence	Sunstone, or aventurescent feldspar	Page 218	None	N/SC	N/A	N/A	1. 2.b & j	No
		Orthoclase	Page 208	None	N/SC	N/A	N/A	1. 2.b & j	No
	Orthoclase transparent, yellow	Yellow Orthoclase	Page 210	None	N/SC	N/A	N/A	1. 2.b & j	No
	Adularia (orthoclase with adularescence)	Moonstone	Page 207	None	N/SC	N/A	N/A	1. 2.b & j	No
Fluorite		Fluorite	Page 337	None	N/SC	N/A	N/A	1. 2.a, b & j	No
	Blue Fluorite	Blue John	Page 338	None	N/SC	N/A	N/A	1. 2.a, b & j	No
	Blue Fluorite	Blue John	Page 338	Heated (commonly)	H/SC	stable	General information	1. 2.a, b & j	No
Gahnite		See Spinel	---	---		---	---	---	---
Garnet (group)			---	---		---	---	---	---

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Almandine		Almandine or Almandite	Page 197	None	N	N/A	N/A	1. 2.e	No
Almandine- Pyrope	Rhodolite	Rhodolite	Page 194	None	N	N/A	N/A	1. 2.e	No
Andradite		Andradite	Page 203-5	None	N	N/A	N/A	1. 2.e	No
	Demantoid	Demantoid	Page 204	None	N	N/A	N/A	1. 2.e	No
	Demantoid	Demantoid	Page 204	Heated (commonly)	H	Stable	General information	1. 2.e	No
	Melanite	Melanite	Page 204	None	N	N/A	N/A	1. 2.e	No
Grossular	Tsavorite (green colour due to vanadium and/or chromium)	Tsavorite, or Tsavolite, or Chrome Grossular	Page 201-2	None	N	N/A	N/A	1. 2.e	No
	Hessonite	Hessonite	Page 201-2	None	N	N/A	N/A	1. 2.e	No
	Grossular (other colours)	Grossular with colour prefix	Page 201-3	None	N	N/A	N/A	1. 2.e	No
Pyrope		Pyrope	Page 193-5	None	N	N/A	N/A	1. 2.e	No
	Chrome Pyrope	Chrome Pyrope	Page 193-5	None	N	N/A	N/A	1. 2.e	No
Pyrope-Spessartine		Pyrope-Spessartine, or Malaia Garnet or Umbalite	Page 196-7	None	N	N/A	N/A	1. 2.e	No
Spessartine		Spessartine, Spessartite or Mandarin Garnet	Page 200-1	None	N	N/A	N/A	1. 2.e	No
Uvarovite		Uvarovite	Page 205-6	None	N	N/A	N/A	1. 2.e	No
Grossular		See Garnet	---	---		---	---	---	---

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Gypsum	Alabaster	Alabaster	Page 310-12	None	N/SC	N/A	N/A	1. 2.a, b, c & j	No
	Alabaster	Alabaster	Page 310-12	Dyed (commonly)	D/SC	unstable	Specific information	1. 2.a, b, c, j & k	No
	Alabaster	Alabaster	Page 310-12	Surface near-colourless waxing (commonly)	W/SC	unstable	General information	1. 2.a, b, c, j & k	No
	Satin Spar	Satin Spar	Page 310	None	N/SC	N/A	N/A	1. 2.a, b, c & j	No
Haematite		Haematite, or Hematite	Page 282-4	None	N	N/A	N/A	1.	No
Hypersthene		See Enstatite	---	---		---	---	---	---
Idocrase		See Vesuvianite	---	---		---	---	---	---
Iolite		See Cordierite	---	---		---	---	---	---
Ivory		Ivory	Page 580-594	None	N/SC	N/A	N/A	1. 2.a, c, i, j & m	No
		Ivory	Page 580-594	Bleached (commonly)	B/SC	stable	General information	1. 2.a, c, i & j	No
		Ivory	Page 580-594	Dyed (occasionally)	D/SC	unstable	Specific information	1. 2.a, c, f, i, j & k	No
		Ivory	Page 580-594	Near-colourless surface waxing (occasionally)	W/SC	unstable	General information	1. 2.a, c, f, i, j & k	No
		Ivory	Page 580-594	Impregnated with near-colourless plastic or hardened resins (commonly)	I/SC	unstable	Specific information	1. 2.a, i, j & k	No
	Elephant Ivory	Ivory, or Elephant Ivory	Page 580-594	See ivory above		See ivory above	See ivory above	See ivory above	See ivory above

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Ivory.....cont.	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 (<i>other animals</i>)	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, Jadeite-jade	Page 267, 271, 272-9	None	N	N/A	N/A	1.	No
		Jadeite, Jadeite-jade	Page 267, 271, 272-9	Near-colourless polymer impregnation (commonly)	I-D/SC	unstable	Specific information	1. 2. j & k	No
		Jadeite, Jadeite-jade	Page 267, 271, 272-9	Polymer and colour impregnation following acid treatment (commonly)	I-D/SC	Variable	Specific information	1. 2. j & k	No
		Jadeite, or Jadeite-jade.	Page 267, 271, 272-9	Dyed (commonly)	I-D/SC	unstable	Specific information	1. 2. j & k	No
		Jadeite, or Jadeite-jade.	Page 267, 271, 272-9	Heated	H	Stable	General information	1	No
	Chloromelanite	Chloromelanite	Page 273, 277	None	N	N/A	N/A	1	No
Jet		Jet, or Gagat	Page 577-79	None	N/SC	N/A	N/A	1. 2.a, b, & j	No
Kornerupine		Kornerupine	Page 347-8	None	N	N/A	N/A	1. 2.a, b, & j	No
Kyanite		Kyanite, or Disthene	Page 348-9	None	N	N/A	N/A	1. 2.a, b, & j	No
Labradorite		See Feldspar	---	---		---	---	---	---

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3})	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Lazulite		Lazulite	Page 349	None	N/SC	N/A	N/A	1. 2.b & j	No
Lazurite		Lazurite	Page 263	None	N/SC	N/A	N/A	1. 2.b & j	No
Lapis Lazuli	Lapis Lazuli	Lapis Lazuli, or Lapis	Page 263-6	None	N/SC	N/A	N/A	1. 2.h & j	No
	Lapis Lazuli	Lapis Lazuli, or Lapis	Page 263-6	Surface near-colourless waxing (commonly)	W/SC	unstable	General information	1. 2.h, j & k	No
	Lapis Lazuli	Lapis Lazuli, or Lapis	Page 263-6	Dyed (commonly)	D/SC	variable	Specific information	1. 2.h, j & k	No
Lizardite		See Serpentine	---	---		---	---	---	---
Malachite		Malachite	Page 351-2	None	N/SC	N/A	N/A	1. 2.a, b, c & j	Few
		Malachite	Page 351-2	Surface Near-colourless waxing (Occasionally)	W/SC	unstable	General information	1. 2.a, b, c, j & k	No
		Malachite	Page 351-2	Impregnated with near-colourless plastic or hardened resin (rarely)	I/SC	unstable	Specific information	1. 2.a, b, c, j & k	No
	Azurite-Malachite	Azurite-Malachite	Page 318, 351	None	N/SC	N/A	N/A	1. 2.a, b, c & j	No
	Azurite-Malachite	Azurite-Malachite	Page 318, 351	Surface near-colourless waxing (occasionally)	W/SC	unstable	General information	1. 2.a, b, c, j & k	No
	Azurite-Malachite	Azurite-Malachite	Page 318, 351	Impregnated with plastic or other hardened agents (rarely)	I/SC	unstable	Specific information	1. 2.a, b, c, j & k	No
Maw-sit-sit		Maw-sit-sit	Page 272-4	None	N	N/A	N/A	1.	No
Microcline		See Feldspar	---	---		---	---	---	---
Montebrasite		See Amblygonite	---	---		---	---	---	---
Obsidian		Obsidian	Page 287-90	None	N	N/A	N/A	1.	No
	Mahogany Obsidian	Mahogany Obsidian	Page 287-90	None	N	N/A	N/A	1.	No

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Obsidian....cont.	Sheen Obsidian	Sheen Obsidian	Page 287-90	None	N	N/A	N/A	1.	No
	Snowflake Obsidian	Snowflake Obsidian	Page 287-90	None	N	N/A	N/A	1.	No
	Rainbow Obsidian	Rainbow Obsidian	Page 287-90	None	N	N/A	N/A	1.	No
Oligoclase		See Feldspar	---	---		---	---	---	---
Olivine	Peridot	Peridot	Page 183	None	N/SC	N/A	N/A	1. 2.e & h	No
	Peridot	Peridot	Page 183	near-colourless oil, wax or resins in fissures (rarely)	O/SC	unstable	General information	1. 2.e, h & k	No
	Peridot	Peridot	Page 183	Filled open fractures with near-colourless hardened resin (rarely)	F/SC	unstable	Specific information	1. 2.e, h & k	No
Opal	(Play-of-colour) – may on the basis of body tone/ transparency, or colour be described as:		---	---		---	---	---	---
	Black to very dark	Black Opal	Page 243	None	N/SC	N/A	N/A	1. 2.b, c, d, e & j	Many
	Black to very dark	Black Opal	Page 243	Impregnated with plastic or resin (rarely)	I/SC	unstable	Specific information	1. 2.b, c, d, e, j & k	No
	Black to very dark (transparent to near transparent)	Black Crystal Opal	Page 246-8	None	N/SC	N/A	N/A	1. 2.b, c, d, e & j	Many
	Black to very dark (transparent to near-transparent)	Black Crystal Opal	Page 246-8	Impregnated with plastic or resin (rarely)	I/SC	unstable	Specific information	1. 2.b, c, d, e, j & k	No
	White	White Opal	Page 246-8	None	N/SC	N/A	N/A	1. 2.b, c, d, e & j	Many

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3})	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Opal...cont.	White	White Opal	Page 246-8	Impregnated with plastic or resin (rarely)	I/SC	unstable	Specific information	1. 2.b, c, d, e, i & k	No
	White (transparent to near-transparent)	Crystal opal or water opal	Page 243	None	N/SC	N/A	N/A	1. 2.b, c, d, e & j	Many
	White (transparent to near-transparent)	Crystal opal or water opal	Page 243	Impregnated with plastic or resin (rarely)	I/SC	unstable	Specific information	1. 2.b, c, d, e, i & k	Many
	Oolitic Opal	Oolitic Opal		None	N/SC	N/A	N/A	1. 2.b, c, d, e & j	No
	Oolitic Opal	Oolitic Opal		Impregnated with plastic or resin (rarely)	I/SC	unstable	Specific information	1. 2.b, c, d, e, i & k	No
	Orange to Red (transparent to translucent)	Fire Opal	Page 244-5	None	N/SC	N/A	N/A	1. 2.b, c, d, e & j	No
	(Attached to ironstone)	Boulder Opal	Page 249	None	N/SC	N/A	N/A	1. 2.b, c, d, e & j	No
	(Attached to ironstone)	Boulder Opal	Page 249	Infusion of unhardened near-colourless substances into voids (occasionally)	F/SC	unstable	Specific information	1. 2.b, c, d, e, i & k	No
	(In matrix)	Matrix Opal	Page 246	None	N/SC	N/A	N/A	1. 2.b, c, d, e & j	No
	(In matrix)	Matrix Opal	Page 246	Sugar / acid treatment (commonly)	D/SC	stable	Specific information	1. 2.b, c, d, e, i & k	No
	Hydrophane	Hydrophane		None	N/SC	N/A	N/A	1. 2.b, c, d, e & j	No

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Opal...cont.	Hydrophane	Hydrophane		Infusion of unhardened near-colourless substances into voids (occasionally)	F/SC	unstable	Specific information	1. 2.b, c, d, e, j & k	No
	Hydrophane	Hydrophane		Sugar / acid treatment (commonly)	D/SC	stable	Specific information	1. 2.b, c, d, e, j & k	No
	Hydrophane	Hydrophane		Dying	D/SC	unstable	Specific information	1. 2.b, c, d, e, j & k	No
	Hydrophane	Hydrophane		Smoke treatment	D/SC	unstable	Specific information	1. 2.b, c, d, e, j & k	No
	(No play-of-colour) Common opal – may on the basis of colour / inclusions, be described as:	Common Opal	Page 246	None	N/SC	N/A	N/A	1. 2.b, c, d, e & j	Many
	(No play-of-colour)	Common Opal	Page 246	Impregnated with plastic or resin (rarely)	I/SC	unstable	Specific information	1. 2.b, c, d, e, j & k	Many
	White, porcelain-like	Cacholong Opal	Page 246	None	N/SC	N/A	N/A	1. 2.b, c, d, e & j	Few
	White, porcelain-like	Cacholong Opal	Page 246	Impregnated with plastic or resin (rarely)	I/SC	unstable	Specific information	1. 2.b, c, d, e, j & k	Few
	Orange to Red	Fire Opal	Page 246	None	N/SC	N/A	N/A	1. 2.b, c, d, e & j	No
	Green	Prase Opal, or Green Opal	Page 252	None	N/SC	N/A	N/A	1. 2.b, c, d, e & j	No
	(other colours)	Common Opal with colour prefix	Page 246	None	N/SC	N/A	N/A	1. 2.b, c, d, e & j	Many

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Opal...cont.	(other colours)	Common Opal with colour prefix	Page 246	Impregnated with plastic or resin (rarely)	I/SC	unstable	Specific information	1. 2.b, c, d, e, i & k	No
	With green or black dendritic inclusions	Moss Opal	Page 252	None	N/SC	N/A	N/A	1. 2.b, c, d, e & j	No
	Pseudomorphous after wood	Opalised Wood, or Silicified Wood	Page 245	None	N/SC	N/A	N/A	1. 2.b, c, d, e & j	No
	Pseudomorphous after shells	Opalised Shell, or (animal name) Shell Opal	Page 245	None	N/SC	N/A	N/A	1. 2.b, c, d, e & j	No
	Pseudomorphous after fossils	Opalised fossil, or (animal name) Fossil Opal	Page 245	None	N/SC	N/A	N/A	1. 2.b, c, d, e & j	No
Ophicalcite		Ophicalcite	Page 297, 371	None	N/SC	N/A	N/A	1. 2.b, c, d, e & j	No
		Ophicalcite	Page 297, 371	Impregnated with wax (occasionally)	I/SC	unstable	Specific information	1. 2.a, b, c, h, i & k	No
	Connemara	Connemara	Page 277, 297	None	N/SC	N/A	N/A	1. 2.a, b, c, d, e & j	No
	Connemara	Connemara	Page 277, 297	Surface near-colourless waxing (occasionally)	W/SC	unstable	General information	1. 2.a, b, c, h, i & k	No
	Verd Antique	Verd Antique	Page 277, 296	None	N/SC	N/A	N/A	1. 2.a, b, c, d, e & j	No
	Verd Antique	Verd Antique	Page 277, 296	Surface near-colourless waxing (occasionally)	W/SC	unstable	General information	1. 2.a, b, c, h, i & k	No
Orthoclase		See Feldspar	---	---		---	---	---	---
Pearl		See the Pearl Book	---	---		---	---	---	---

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Pezzottaite		Pezzottaite	---	None	N	N/A	N/A	1.	No
		Pezzottaite Cat's eye	---	None	N	N/A	N/A	1.	No
Phenakite		Phenakite	Page 358	None	N	N/A	N/A	1.	No
Prehnite		Prehnite	Page 361	None	N	N/A	N/A	1.	No
Purpurite		Purpurite		None	N	N/A	N/A	N/A	No
Pyrite		Pyrite	Page 280-2	None	N	N/A	N/A	1.	No
Pyrope		See Garnet	---	---		---	---	---	---
Pyrophyllite		Pyrophyllite	Page 362-3	None	N/SC	N/A	N/A	1. 2.a & j	No
Quartz (macro-crystalline)			Page 219-32	---		---	---	---	---
	Amethyst	Amethyst	Page 225-6	None	N/SC	Colour is unstable in some stones	N/A	1. 2.f	Many
	Amethyst	Amethyst	Page 225-6	Heated (occasionally)	H	stable	General information	1.	Many
	Amethyst-Citrine <i>bicolor</i>	Ametrine	Page 226, 425	None	N/SC	N/A	N/A	1.	Some
	Amethyst-Citrine <i>bicolor</i>	Ametrine		Heated Citrine, (rarely)	H	Stable	General information	1.	Rare
	Amethyst-Milky Quartz	Amethyst-Milky Quartz	Page 224	None	N	N/A	N/A	1.	No
	Smoky Quartz	Smoky Quartz, or Cairngorm, or Brown Quartz	Page 224-5	None	N	N/A	N/A	1.	No
	Smoky Quartz	Smoky Quartz, or Cairngorm, or Brown Quartz	Page 224-5	Irradiated (occasionally)	R	stable	Specific information	1.	Many
	(dark brown to black)	Morion	Page 224	None	N	N/A	N/A	1.	Some
	Citrine	Citrine, or Yellow Quartz	Page 225-6	None	N	N/A	N/A	1.	Many

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Quartz (macro-crystalline) cont.	Citrine	Citrine, or Yellow Quartz	Page 225-6	Heated (usually)	H	stable	General information	1.	No
	Prasiolite	Prasiolite, or Green Quartz	Page 226	None	N	N/A	N/A	1.	Many
	Prasiolite	Prasiolite, or Green Quartz	Page 226	Heated (usually)	H	stable	General information	1.	No
	Rock Crystal	Rock Crystal	Page 221-3	None	N	N/A	N/A	1.	Many
	Rose Quartz	Rose Quartz	Page 229-30	None	N	N/A	N/A	1.	Some
	Aventurine Quartz	Aventurine Quartz	Page 231-2	None	N	N/A	N/A	1.	No
	Blue Quartz (colour due to inclusions of dumortierite)	Blue Quartz, or Dumortierite Quartz	Page 332-3	None	N	N/A	N/A	1.	Many
	Iris Quartz	Iris Quartz	Page 219-32	None	N	N/A	N/A	1.	Some
	Iris Quartz	Iris Quartz	Page 219-32	Heated and quenched (occasionally)	H/SC	stable	General information	1. 2.j	Some
	Iris Quartz	Iris Quartz	Page 219-32	Dyed (commonly)	D/SC	unstable	Specific information	1. 2.j & k	No
	Quartzite	Quartzite		None	N/SC	N/A	N/A	1. 2.c	No
	Quartzite	Quartzite		Dyed (usually)	D/SC	unstable	Specific information	1. 2.c, j & k	No
	Quartzite	Quartzite		Impregnated with near-colourless plastic or hardened resins (occasionally)	I/SC	unstable	Specific information	1. 2.j & k	No
	Quartz Cat's-eye	Quartz Cat's-eye	Page 132-3, 140	None	N	N/A	N/A	1.	No
	Quartz with inclusions	Rutilated Quartz, Tourmalinated Quartz, etc.		None	N	N/A	N/A	1.	No
Quartz (crypto/microcrystalline)	Chalcedony or Agate:			---		---	---	---	---

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Quartz (crypto/microcrystalline) cont.	Chrysoprase (green colour due to inclusions of nickeliferous clay)	Chrysoprase	Page 233-4	None	N	N/A	N/A	1.	No
	Chrome Chalcedony (green colour due to chromium)	Chrome Chalcedony, or Mtorolite	Page 232-6	None	N	N/A	N/A	1.	No
	Chrysocolla Chalcedony (blue to blue-green colour due to inclusions of chrysocolla)	Chrysocolla Chalcedony	Page 232-6	None	N	N/A	N/A	1.	No
	Cornelian	Cornelian, or Carnelian	Page 235	None	N	N/A	N/A	1.	No
	Cornelian	Cornelian, or Carnelian	Page 235	Heated (rarely)	H	stable	General information	1.	No
	Cornelian	Cornelian, or Carnelian	Page 235	Dyed (unusual)	D/SC	stable	Specific information	1. 2.f	No
	Sard	Sard	Page 235	None	N	N/A	N/A	1.	No
	Prase	Prase	Page 235	None	N	N/A	N/A	1.	No
	(other uniform colours)	Agate with colour prefix, or Chalcedony with colour prefix	Page 235	None	N	N/A	N/A	1.	No
	(other uniform colours)	Agate with colour prefix, or Chalcedony with colour prefix	Page 235	Dyed black (always)	D	stable	Specific information	1.	No
		Agate with colour prefix, or Chalcedony with colour prefix	Page 235	Dyed blue (always)	D/SC	variable	Specific information	1. 2.f	No

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Quartz (crypto/microcrystalline) cont.		Agate with colour prefix, or Chalcedony with colour prefix	Page 235	Dyed green (always)	D/SC	variable	Specific information	1. 2.f	No
	(other uniform colours)	Agate with colour prefix, or Chalcedony with colour prefix	Page 236-9	Dyed (commonly)	D/SC	unstable	Specific information	1. 2.f	No
	Banded Agate	Banded Agate	Page 236	None	N	N/A	N/A	1	No
	Banded Agate	Banded Agate	Page 236	Dyed (usually)	D	Fairly stable	Specific information	1. 2.f & k	No
	Fire Agate	Fire Agate	Page 236	None	N	N/A	N/A	1.	No
	Iris Agate	Iris Agate	Page 236-9	None	N	N/A	N/A	1.	No
	Moss Agate	Moss Agate, or Dendritic Agate	Page 239	None	N	N/A	N/A	1.	No
	Onyx (straight layers of black and white)	Onyx	Page 236	Dyed (always)	D	stable	Specific information	1.	No
	Sardonyx	Sardonyx	Page 236	None	N	N/A	N/A	1.	No
	Jasper:			---		---	---	---	---
	Heliotrope	Heliotrope, or Bloodstone	Page 235	None	N	N/A	N/A	1.	No
	Multicoloured Jasper	Multicoloured Jasper	Page 240-2	None	N	N/A	N/A	1.	No
	Orbicular Jasper	Orbicular Jasper	Page 240	None	N	N/A	N/A	1.	No
	Jasper, other colours	Jasper with colour prefix	Page 240-2	None	N	N/A	N/A	1.	No
	Jasper, other colours	Jasper with colour prefix	Page 240-2	Dyed (commonly)	D/SC	unstable	Specific information	1. 2.f & k	No
	Pseudomorphous after Crocidolite:			---		---	---	---	---
	Falcon's-eye	Falcon's-eye, or Hawk's-eye	Page 230-1	None	N	N/A	N/A	1.	No
	Tiger's-eye	Tiger's-eye	Page 230-1	None	N	N/A	N/A	1.	No

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Quartz (crypto/microcrystalline) cont.	Tiger's-eye	Tiger's-eye	Page 230-1	Heated (commonly)	H	stable	General information	1.	No
	Tiger's-eye	Tiger's-eye	Page 230-1	Dyed (commonly)	D/SC	unstable	Specific information	1. 2.f, j & k	No
	Pseudomorphous after Wood	Petrified Wood, or Silicified Wood	Page 239-240	None	N	N/A	N/A	1.	No
Rhodochrosite		Rhodochrosite	Page 364	None	N/SC	N/A	N/A	1. 2.a, b, h & j	No
Rhodonite		Rhodonite	Page 365	None	N/SC	N/A	N/A	1. 2.a & b	No
Scapolite		Scapolite	Page 366-8	None	N	N/A	N/A	1.	No
Serpentine (group of) Antigorite, Chrysotile and Lizardite			Page 369-72	None	N	N/A	N/A	1. 2.a, h & j	No
			Page 369-72	Surface near-colourless waxing (commonly)	W/SC	unstable	General information	1. 2.a, h, j & k	No
			Page 369-72	Dyed (commonly)	D/SC	unstable	Specific information	1. 2.a, f, h, j & k	No
	Williamsite		Page 369-72	None	N/SC	N/A	N/A	1. 2.a, h & j	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

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
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	
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	
Shell		Shell, or Shell with name of animal	Page 564-7	None	N/SC	N/A	N/A	1. 2.a, c, f, h, & j	No
		Shell, or Shell with name of animal	Page 564-7	Dyed (often)	D/SC	unstable	Specific information	1. 2.a, c, f, h, i & k	No
	Mother of Pearl	Mother of Pearl	Page 501	None	N/SC	N/A	N/A	1. 2.a, c, h & j	No
	Mother of Pearl	Mother of Pearl	Page 501	Dyed (sometimes)	D/SC	unstable	Specific information	1. 2.a, c, f, h j & k	No
Sillimanite		Sillimanite	Page 337	None	N/SC	N/A	N/A	1. 2.j	No
	(with chatoyancy)	Sillimanite Cat's-eye		None	N/SC	N/A	N/A	1. 2.j	No
Sinhalite		Sinhalite	Page 373	None	N/SC	N/A	N/A	1. 2.j	No
Smithsonite		Smithsonite	Page 373-4	None	N/SC	N/A	N/A	1. 2.a, b, h j	No
	(blue to green)	Smithsonite, or Bonamite	Page 373	None	N/SC	N/A	N/A	1. 2.a, b, h & j	No
Sodalite		Sodalite	Page 374-5	None	N/SC	N/A	N/A	1. 2.j	No
		Sodalite	Page 374-5	Dyed (rarely)	D/SC	unstable	Specific information	1. 2.b, f, j & k	No
Spessartine		See garnet	---	---		---	---	---	---
Sphalerite		Sphalerite, or Zinc Blende	Page 386	None	N/SC	N/A	N/A	1, 2.a & j	No

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Sphene		See Titanite	---	---		---	---	---	
Spinel (group of)			---	---		---	---	---	
Spinel		Spinel (with colour prefix)	Page 141-9	None	N	N/A	N/A	1.	Yes
Spinel		Red Spinel	Page 141-9	Heated (occasionally)	H	Stable	General information	1.	Yes
	Pleonaste	Pleonaste, or Black Spinel	Page 141-2	None	N	N/A	N/A	1.	No
Spinel-Gahnite	Gahnospinel	Gahnospinel	Page 141	None	N	N/A	N/A	1.	No
Gahnite		Gahnite	Page 341	None	N	N/A	N/A	1.	No
Spodumene	Kunzite	Kunzite	Page 186-90	None	N/SC	unstable	N/A	1. 2.b, f & j	No
	Kunzite	Kunzite	Page 186-90	Heated, (commonly)	H/SC	unstable	General information	1. 2.b, f & j	No
	Kunzite	Kunzite	Page 186-90	Irradiated (commonly)	R/SC	unstable	Specific information	1. 2.b, f & j	No
	Hiddenite (green colour due to chromium)	Hiddenite	Page 186-89	None	N/SC	unstable	N/A	1. 2.b & j	No
	(other colours)	Spodumene with colour prefix	Page 186-90	None	N/SC	N/A	N/A	1. 2.b, f & j	No
	(other colours)	Spodumene with colour prefix	Page 186-90	Green produced by irradiation (rarely)	R/SC	unstable	Specific information	1. 2.b, f & j	No
Sugilite		Sugilite	Page 378	None	N/SC	N/A	N/A	1. 2.j	No
Talc	Steatite	Steatite, or Soapstone	Page 374	None	N/SC	N/A	N/A	1. 2.a, b, c & j	No
	Steatite	Steatite, or Soapstone	Page 374	Dyed (rarely)	D/SC	unstable	Specific information	1. 2.a, b, c, j & k	No
Taaffeite		Taaffeite	Page 379-80	None	N/SC	N/A	N/A	1. 2.j	No
Tektite		Tektite	Page 290-2	None	N	N/A	N/A	1.	No
	Moldavite	Moldavite	Page 291-2	None	N	N/A	N/A	1.	No

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Titanite		Titanite, or Sphene	Page 375	None	N/SC	N/A	N/A	1. 2.j	No
Topaz		Topaz	Page 150-163	None	N/SC	N/A	N/A	1. 2.b & j	No
		Topaz	Page 150-163	Heated to produce pink (usually)	H/SC	stable	General information	1. 2.b & j	No
		Topaz	Page 150-163	Irradiated and heated to produce blue (usually)	R/SC	stable	Specific information	1. 2.b & j	No
		Topaz	Page 150-163	Irradiated to yellow and orange (occasionally)	R/SC	unstable	Specific information	1. 2.b, f & j	No
		Topaz	Page 150-163	Irradiated to produce green (Usually)	R/SC	unstable	Specific information	1. 2.b, f & j	No
		Topaz	Page 150-163	Diffused to produce green (commonly)	U/SC	Stable (without re-cutting or re-polishing)	Specific information	1. 2.b, j & m	No
		Topaz	Page 150-163	Coated with very thin layers of metal oxide to provide various colours and to add special effects	C/SC	Unstable	Specific information	1. 2.b, f & j	No
Tortoiseshell		Tortoiseshell	Page 594-9	None	N/SC	N/A	N/A	1. 2.a, & c	No
Tourmaline Group	Colourless	Colourless Tourmaline, or Achroite	Page 163-5	None	N	N/A	N/A	1.	No
	Pink to red	Pink Tourmaline, or Red Tourmaline, or Rubellite	Page 163-5	None	N	N/A	N/A	1.	No

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable - Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Tourmaline group...cont	Pink to red	Pink Tourmaline, or Red Tourmaline, or Rubellite	Page 163-5	Heated (occasionally)	H	stable	General information	1.	No
	Pink to red	Pink Tourmaline, or Red Tourmaline, or Rubellite	Page 163-5	Irradiated (commonly)	R	stable	Specific information	1.	No
	<i>Green due to chromium and/or vanadium</i>	Chrome Tourmaline	Page 163-5	None	N	N/A	N/A	1.	No
	Green	Green Tourmaline, verdelith or verdelite	Page 163-5	None	N	N/A	N/A	1.	No
	Green	Green Tourmaline, verdelith or verdelite	Page 163-5	Heated (commonly)	H	stable	General information	1.	No
	Green	Green Tourmaline, verdelith or verdelite	Page 163-5	near-colourless oils, resins and waxes in fissures (rarely)	O/SC	unstable	General information	1. 2.j & k	No
	Green	Green Tourmaline, verdelith or verdelite	Page 163-5	Cavities and fractures filled with near-colourless hardened substances (very rarely)	F/SC	unstable	Specific information	1. 2.j & k	No
	<i>Green to blue due to copper</i>	Paraiba Tourmaline	Page 163-5	None	N	N/A	N/A	1.	No
	<i>Green to blue due to copper</i>	Paraiba Tourmaline	Page 163-5	Heated (commonly)	H	stable	General information	1.	No
	<i>Green to blue due to copper</i>	Paraiba Tourmaline	Page 163-5	Filling of fissures with near-colourless oils, wax and resins (commonly)	O/SC	unstable	General information	1. 2.j & k	No

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Tourmaline group...cont	Green to blue <i>due to copper</i>	Paraiba Tourmaline	Page 163-5	Filling of cavities and fractures with near-colourless hardened substances (commonly)	F/SC	unstable	Specific information	1. 2.j & k	No
	Blue	Blue Tourmaline, or Indicolite	Page 163-5	None	N	N/A	N/A	1.	No
	Blue	Blue Tourmaline, or Indicolite	Page 163-5	Heated (commonly)	H	stable	General information	1.	No
	(other colours)	Tourmaline with colour prefix	Page 163-5	None	N	N/A	N/A	1.	No
	(other colours)	Tourmaline with colour prefix	Page 163-5	Heated to produce yellow/orange (rarely)	H	stable	General information	1.	No
	(other colours)	Tourmaline with colour prefix	Page 163-5	Irradiated to improve yellow/orange (rarely)	R	stable	Specific information	1.	No
	<i>Parti-coloured:</i>	Parti-coloured, Bi-coloured, or tri-coloured Tourmaline	Page 163-5	None	N	N/A	N/A	1.	No
	<i>(with red core and green rim)</i>	Watermelon Tourmaline	Page 163-5	None	N	N/A	N/A	1.	No
	Liddicoatite	Liddicoatite	Page 165	None	N	N/A	N/A	1.	No
	Tourmaline Cat's-eye	Tourmaline Cat's-eye	Page 163-5	None	N	N/A	N/A	1.	No
Tremolite		See Actinolite	---	---		---	---	---	---
Tugtupite		Tugtupite	Page 381	None	N/SC	N/A	N/A	1. 2.j	No
Turquoise		Turquoise	Page 254-63	None	N/SC	N/A	N/A	1. 2.b, c & j	No

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Turquoisecont.		Turquoise	Page 254-63	Impregnated with plastic (commonly)	I/SC	unstable	Specific information	1. 2.j & k	No
		Turquoise	Page 254-63	Surface near-colourless waxing (commonly)	W/SC	unstable	General information	1. 2.j & k	No
		Turquoise	Page 254-63	Dyed (rarely)	D/SC	unstable	Specific information	1. 2.b, c, j & k	No
	Turquoise Matrix	Turquoise Matrix, or Spider's Web Turquoise	Page 255	See Turquoise above		See Turquoise above	See Turquoise above	1. 2.b, c, j & k	No
Uvarovite		See Garnet	---	---		---	---	---	---
Variscite		Variscite	Page 382	None	N/SC	N/A	N/A	1. 2.j	No
Verdite		Verdite	Page 383	None	N/SC	N/A	N/A	1. 2.j	No
Vesuvianite		Vesuvianite, or Idocrase	Page 344	None	N	N/A	N/A	1. 2.j	No
Vesuvianite...Cont.	Californite	Californite	Page 344-5	None	N	N/A	N/A	1. 2.j	No
Zinc Blende		See Sphalerite	---	---		---	---	---	---
Zircon		Zircon (with colour prefix)	Page 176-83	Heated to produce red and near-colourless (always)	H/SC	unstable	General information	1. 2.b, f & j	No
	(blue)	Blue Zircon, or Starlite	Page 176-83	Heated to produce blue (always)	H/SC	unstable	General information	1. 2.b, f & j	No
	(other colours)	Zircon (with colour prefix)	Page 176-83	None	N/SC	N/A	N/A	1. 2.b & j	No

Nomenclature			Best trade reference (Gems, their Sources, Descriptions & Identification)	Modifications				Care advice (see Annex B clause)	Available as a synthetic
Material	Variety / type	Commercial name		Possible modification type (see clause 4.6 or 4.7 & (frequency of use ^{1,3}))	Trade code ⁵	Stability - Variable Stable, or Unstable	Requires Specific Information (see clause 4.6 General Information or 4.7)		
Zircon.....cont.	(other colours)	Zircon (with colour prefix)	Page 176-83	Heated to improve yellow (commonly) or green (occasionally)	H/SC	unstable	General information	1. 2.b, f & j	No
Zoisite	Blue to violet	Tanzanite	Page 387-8	None	N/SC	N/A	N/A	1. 2.j	No
	Blue to violet	Tanzanite	Page 387-8	Heated (almost always)	H/SC	stable	General information	1. 2.j	No
	<i>Transparent other colours</i>	Tanzanite with colour prefix	Page 387-8	None	N/SC	N/A	N/A	1. 2.j	No
	Thulite	Thulite	Page 387-8	None	N	N/A	N/A	1.	No
	Anyolite	Anyolite	Page 387-8	None	N	N/A	N/A	1.	No
	<i>Non transparent other colours</i>	Zoisite with colour prefix	Page 387-8	None	N	N/A	N/A	1.	No

Annex B

Care requirements (Also see Annex A)

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.

2 Special Care

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

- a. Some stones are prone to scratching due to low hardness. Wear them with care.
- b. Some stones cleave or fracture easily or are prone to the effects of brittleness e.g. rubbed facet edges. Wear them with care.
- c. Some stones are porous. Do not allow contact with coloured fluids.
- d. Some stones are prone to crack due to loss of structural water. Keep away from heat and drying environments.
- e. Some stones are prone to damage due to thermal shock. Do not expose them to extreme temperature changes.
- f. 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.
- g. Some stones fade rapidly unless kept in the dark.
- h. Some stones are particularly susceptible to attack by acids. Keep them away from acids.
- i. Some organic substances dissolve upon contact with solvents such as nail varnish remover. Keep them away from all solvents and other strong chemicals.
- j. Some stones are susceptible to damage from ultrasonic cleaning. Do not expose them to ultrasonic cleaning.
- k. 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.

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

Bibliography

Anderson, B.W. 1990. Gem Testing 10th ed. (revised by Jobbins). Butterworths. ISBN 0 408 02320 1

Liddicoat, R.T. 1993. Handbook of Gem Identification 12th ed. Gemmological Institute of America. ISBN 0 87311 021 8

Nassau, K. 1996. Gemstone Enhancement. 2nd ed. Butterworth Heinemann. ISBN 0 7506 1797 7

Nassau, K. 1980. Gems Made by Man. Gemmological Institute of America. ISBN 0 87311016 1

Webster, R. (1997) Gems Their Sources, Descriptions and Identification. 5th ed. Butterworth-Heinemann. Oxford. ISBN 0 7506 1674 1

Webster, R. (1998) Gemmologists' Compendium, 7th ed. N.A.G Press. London

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