# The Diamond Book 

## CIBJO Diamond Commission 2020-12-26



## Table of Contents

Foreword ..... iv
Introduction ..... vi

1. Scope ..... 1
2. Normative references ..... 1
3. Classification of materials ..... 2
3.1. Natural materials ..... 2
3.1.1. Diamond ..... 2
3.1.2. Treated diamond ..... 2
3.2. Artificial products ..... 2
3.2.1. Synthetic diamonds ..... 2
3.2.2. Imitations ..... 2
4. Normative clauses ..... 2
4.1. General clauses ..... 2
4.1.1. Description and display ..... 2
4.1.1.1. Disclosure ..... 2
4.1.1.1.1. Verbal disclosure .....  3
4.1.1.1.2. Written disclosure. .....  3
4.1.1.2. Terms designed to disguise .....  3
4.1.1.3. Display ..... 3
4.1.1.4. Cultured ..... 3
4.1.1.5. The name of cuts ..... 3
4.1.2. Weight (mass) .....  3
4.1.2.1. Rounding ..... 3
4.1.2.2. Total weight ..... 4
4.1.2.3. Total weight (multiple species) ..... 4
4.1.2.4. Fractions ..... 4
4.1.2.5. Weights of less than 1ct ..... 4
4.1.2.6. The terms grain or grainer ..... 4
4.1.3. Measurements ..... 4
4.1.3.1. Unit of measurement ..... 4
4.1.3.2. Round stones .....  4
4.1.3.3. Fancy shapes .....  .4
4.1.4. Grading ..... 5
4.2. Natural material and artificial product clauses ..... 5
4.2.1. Diamonds ..... 5
4.2.2. Treated diamond ..... 5
4.2.2.1. Disclosure ..... 5
4.2.2.2. Terms designed to disguise .....  .5
4.2.2.3. $\quad$ Name of firms ..... 6
4.2.2.4. Care requirements ..... 6
4.3. Artificial product clauses ..... 6
4.3.1. Synthetic diamonds ..... 6
4.3.1.1. Description ..... 6
4.3.1.2. Term designed to disguise ..... 6
4.3.1.3. Name of firms ..... 6
4.3.1.4. Irradiated synthetic diamond ..... 7
4.3.2. Imitation or simulant of diamonds ..... 7
4.3.2.1. Description and display ..... 7
4.3.2.2. Names of firms ..... 7
4.3.3. Composite stones ..... 7
5. Terms and definitions .....  8
6. Annex A - Diamond treatments (informative). ..... 16
7. Annex B - Contents of diamond grading reports (informative) (also see ISO 24016). ..... 16
7.1. Diamond grading reports generally contain the following ..... 16
7.2. Cut - Parts and facet arrangement of a round brilliant cut (informative). ..... 17
7.3. Colour - Corresponding terms for colour grades (informative) ..... 18
7.4. Clarity — Corresponding terms for clarity grades (informative) ..... 19
Index ..... 20

## 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 reorganised and officially named "CIBJO, The World Jewellery Confederation". Today CIBJO, which is domiciled in Switzerland, is a nonprofit 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 organisations to prevent trade barriers developing. The purpose of CIBJO is to encourage harmonisation, promote international co-operation within the jewellery industry and 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.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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
Coral
Diamond

## Ethics

Gemmological
Marketing \& Education
Pearl
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 organisation for each country represents, in principle, all the national trade organisations involved in the sectors mentioned above. This democratic structure, which has contributed to CIBJO's world-wide recognition also includes international trade and commercial organisations, it provides an international forum for the trade to collectively draw attention to issues and implement resulting decisions.

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## Introduction

This CIBJO Diamond guide is designed to assist all those involved with diamonds and artificial products, by recording the accepted trade practices and nomenclature for the industry throughout the world.

The standard is non-judgmental and the definitions and clauses contained herein are designed to prevent unfair or deceptive trade practices, they are formatted and worded to ensure that each diamond and artificial products bought or sold is done so with clarity and honesty. The stability of the market place depends upon the use of the proper nomenclature and the declaration of all known facts that ensure a fully informed purchase or sale, throughout the distribution pipeline all the way to the final consumer.

The following definitions apply in understanding how to implement CIBJO Blue Books and some of its normative references, e.g. when applicable ISO standards.

- "shall" indicates a requirement;
- "should" indicates a recommendation;
- "may" is used to indicate that something is permitted;
- "can" is used to indicate that something is possible.

The Scope (1) of the guide is set out, as are the Normative References (2). The Terms and Definitions (5) are expansive and cross-referenced throughout the Classification of Materials (3), Normative Clauses (4), Annexes - A Diamond treatments (6) and B Contents of diamond grading reports (7). It is important that the reader refers to the relevant Terms and Definitions when consulting each Normative Clause.

The CIBJO Diamond Commission
December 2020

## DIAMONDS and ARTIFICIAL PRODUCTS CHART

## Materials of natural origin and artificial products used in jewellery or objets d'art, with the exception of metals

## DIAMONDS - Clause 4.2.1

A diamond is a natural inorganic substance that is completely formed by nature, without human intervention, that may subsequently be cut, polished and treated.

Diamonds are used in jewellery or objets d'art due to a combination of properties that provide them with beauty, rarity, and relative durability

## TREATED DIAMONDS -

Clause 4.2.2
Diamonds that have been treated by various processes to change their appearance and or durability

## ARTIFICIAL PRODUCTS - Clause 4.3

Products that are partially or completely made by man


Artificially crystallised products with no known natural counterpart (clause 5.5)
Artificial uncrystallised products (clause Errore. L'origine
riferimento non è stata
trovata.)
and

## DIAMONDS - TERMINOLOGY AND <br> CLASSIFICATION (nomenclature)

## 1. Scope

The terminology and classification of diamonds (5.24) and artificial products (5.3) are established with reference to commercial usage, in conformity with the classifications and practices of the diamond and jewellery trade. It shall be used by all traders participating as members of CIBJO member organisations within all member nations.

NOTE - CIBJO recognises that its standards are subject to government regulations in the respective jurisdiction of CIBJO members. In the event there are no government regulations in a member's country, the local industry rule will take precedence as long as it is stricter.

## 2. Normative references

The following referenced documents are useful for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

The Coral Book, CIBJO, International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones, the World Jewellery Confederation, Viale Berengario,19, 20149 Milano, Italy. cibjo@cibjo.org

The Gemmological Laboratory Book, CIBJO, International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones, the World Jewellery Confederation, Viale Berengario,19, 20149 Milano, Italy. cibjo@cibjo.org

The Gemstone Book, CIBJO, International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones, the World Jewellery Confederation, Viale Berengario,19, 20149 Milano, Italy. cibjo@cibjo.org

The Pearl Book, CIBJO (International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones, the World Jewellery Confederation, Viale Berengario,19, 20149 Milano, Italy. cibjo@cibjo.org

The Precious Metals Book, CIBJO, International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones - , the World Jewellery Confederation, Viale Berengario,19, 20149 Milano, Italy. cibjo@cibjo.org

ISO 24016 - Jewellery and precious metals - Grading polished diamonds Terminology, classification and test methods. See:
https://www.iso.org/standard/79795.html
ISO 18323 :2015, Jewellery — Consumer confidence in the diamond industry. http://www.iso.org/iso/catalogue detail.htm?csnumber=62163.

## 3. Classification of materials

The jewellery industry recognises two categories of materials: natural materials, clause 3.1 and artificial products, clause 3.2.

### 3.1. Natural materials

### 3.1.1. Diamond

A diamond (5.24) is a mineral (5.55) which has been formed completely by nature without human interference during its formation. A diamond may subsequently be modified by normal lapidary practices.

### 3.1.2. Treated diamond

Diamonds which have been treated to change their colour and clarity. See clause 4.2.2.

### 3.2. Artificial products

Products that are partially or completely made by man.

### 3.2.1. Synthetic diamonds

Artificial products having essentially the same chemical composition, physical properties and structure as a diamond.

### 3.2.2. Imitations

Artificial products that imitate the appearance of diamonds or synthetic diamonds without having their chemical composition, physical properties and or their structure.

## 4. Normative clauses

### 4.1. General clauses

### 4.1.1. Description and display

All materials listed in clause 3 shall be named, described and displayed in accordance with the definitions, annexes and the terminology set out in all the clauses herein. This applies to all publications, advertisements (5.1), communications addressed to consumers and to the specific information given to a purchaser, prior to or during a final sale, as well as to all commercial documents (5.13) (e.g., offers, labels, memos, delivery notes and invoices) and to appraisals, identification reports, certificates, etc.

### 4.1.1.1. Disclosure

Full disclosure (5.26) by the vendor to the purchaser of all material information (5.54) shall take place whether or not the information is specifically requested and regardless of the effect on the value of the product being presented or sold.

### 4.1.1.1.1. Verbal disclosure

Full verbal disclosure (5.26) shall take place using clear and understandable language prior to the completion of a sale.

### 4.1.1.1.2. Written disclosure

Full written disclosure (5.26) shall be conspicuously included on all commercial documents (5.13) in clear and plain language so as to be readily understandable to the purchaser. The disclosure shall immediately precede the description of the materials listed in clause 3 and shall be equally conspicuous to that description.

### 4.1.1.2. Terms designed to disguise

It is contrary to the purposes of this document to make any misleading or deceptive statement, representation or illustration relating to origin, formation, production, condition or quality that does not conform in all respects with any and all the clauses contained herein.

The terms "natural treated diamond" or "treated natural gemstone", shall not be used because they can be misleading.

### 4.1.1.3. Display

In cases when diamonds are displayed, or jewellery is decorated, with treated diamonds, synthetic diamonds, imitations of diamonds and composite stones, an easily noticeable and legible label adjoining each item shall clearly indicate the precise nature of the objects being shown in accordance with the clauses herein.

### 4.1.1.4. Cultured

The term "cultured" (5.20) or cultivated shall only be used for cultured pearls and organic materials.

### 4.1.1.5. The name of cuts

The name of diamond cuts/shapes shall only be used in conjunction with the correct name of the material from which it is fashioned.

Examples: "brilliant" (5.8), "rose-cut diamond", "marquise shape diamond", "baguette-shape diamond", "emerald cut diamond", "pear-shape diamond", "oval shape diamond".

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

### 4.1.2. Weight (mass)

The weight (5.77) of the diamond shall be expressed in metric carats (ct) (5.9). The weight of a diamond shall be stated in carats to at least two decimal places.

NOTE - Weight may be expressed using the term "point", where a point is $1 / 100^{\text {th }}$ of a carat. Thus a diamond weighing 0.19 ct . may also be described as a 19 point diamond.

### 4.1.2.1. Rounding

The weight shall be rounded upwards if the third decimal is a 9 , for example:
$0.996=0.99 \mathrm{ct}$.
$0.998=0.99 \mathrm{ct}$.
$0.999=1.00 \mathrm{ct}$.
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.

### 4.1.2.2. Total weight

The total weight of diamonds and other gems contained in the same article can only be stated providing it is accompanied, with equal emphasis and conspicuousness, by the total separate weight(s) of each variety or species of gem. An unacceptable example: gem and diamond cluster ring, total gem weight 1.00 ct .

### 4.1.2.3. Total weight (multiple species)

If the total weight of all the diamonds contained in a jewellery piece is given, the weight shall be specified clearly and unambiguously by the terms total weight or words of similar importance. Care shall be taken when using total weights not to give the misleading impression that the piece of jewellery contains one stone equal in weight to the total weight.

### 4.1.2.4. Fractions

The weight of a diamond or group of diamonds can be represented by a fraction providing the weight meets or exceeds the equivalent decimal carat weight. For example: a diamond described as half carat must weigh at least 0.50 ct .

### 4.1.2.5. Weights of less than 1 ct .

Diamonds (5.24) with weights less than 1.00 carat shall be stated with a zero, of equal size and prominence to the other numerals, preceding the decimal point. A correct example would be, 0.25 ct . while an incorrect example would be .25 ct .

### 4.1.2.6. The terms grain or grainer

The terms grain (5.43) or grainer (5.44), as a unit of weight, shall not be used at the retail level for consumers.

NOTE - Grain or grainer is acceptable and regularly used by the trade.

### 4.1.3. Measurements

### 4.1.3.1. Unit of measurement

The distance measurements of a diamond, treated diamond, synthetic diamond or imitation of a diamond shall be expressed in millimetres to at least two decimal places.

### 4.1.3.2. Round stones

For round stones the average diameter and depth (total height) are required. The depth shall be the distance between the table facet and the culet. See Annex B 7.2.

### 4.1.3.3. Fancy shapes

For fancy shapes the length, width and depth (total height) are required. The length shall be the longer measurement and the width shall be the maximum measurement perpendicular to the length. The depth shall be the distance between the table facet and the culet.

### 4.1.4. Grading

CIBJO established a basic grading system for diamonds in 1972. There was work done over a number of years with inputs from CIBJO, ISO GIA, IDC and ScanDN to establish a universal grading system. A version of this is now provided in ISO 24016.

See ISO 24016 for comparison between CIBJO, GIA and ScanDN systems. The CIBJO system uses descriptive terms for colour, whereas the GIA one uses symbols (letters). Also see Annex B 7.3.

NOTE - Grading assessments made on diamonds, treated diamonds (5.76) and synthetic diamonds (5.72) while set in items of jewellery may be inaccurate.

### 4.2. $\quad$ Natural material and artificial product clauses

The content of the following clauses shall be applied.

### 4.2.1. Diamonds

A diamond (5.24) can also be called a natural diamond. The adjectives "real" (5.64), "precious" (5.63), "genuine" (5.40) or "natural (5.56) shall only be used to refer to or designate natural materials.

NOTE 1 - 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.

### 4.2.2. Treated diamond

The fact that a diamond has been treated (5.76) shall be disclosed (5.26).

### 4.2.2.1. Disclosure

A treated diamond shall be disclosed as a "treated diamond", the word treated shall be of equal emphasis and prominence, with characters of the same size and colour as the word "diamond". Do not abbreviate or place an asterisk.

NOTE 1 - As an alternative to clause 4.2.2.1. 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 4.2.2.
"Artificially Irradiated" (5.50), "Coating" (5.14), Foiling (5.34), "Fracture filling" (5.30 and 5.36), Heating- annealing (5.46), "High Pressure High temperature treated " (5.47), "Internal laser drilling (5.49 and 5.53)

NOTE 2 - It is the responsibility of the seller to disclose irradiated gemstones in accordance to national regulations

NOTE 3 - The use of lasers to inscribe a diamond on its girdle is an accepted practice and does not constitute a treatment.

### 4.2.2.2. Terms designed to disguise

Any term that is designed to disguise that a treatment has occurred, or to imply that a treatment is part of the normal cutting and polishing process or that misleads the consumer in any way shall not be used. For example the use of terms such as "improved" shall not be used to describe a treated diamond.

NOTE - The terms "natural treated diamond" or "treated natural diamond" may not be used because they can be misleading.

### 4.2.2.3. Name of firms

Names of firms, manufacturers or trademarks shall not be used in connection with treated diamonds, unless such names are clearly succeeded by the word treated or are otherwise conspicuously and prominently disclosed as treated. For example, a diamond business trading as Bianchi may describe its treated diamonds as "Bianchi Treated Diamonds" or "Bianchi Diamonds, treated by [treatment]" but not as "Bianchi Diamonds".

### 4.2.2.4. Care requirements

Any special care requirements that the treatment creates shall be disclosed (5.26).

### 4.3. Artificial product clauses

### 4.3.1. Synthetic diamonds

### 4.3.1.1. Description

The fact that a synthetic diamond (5.72) is wholly or partially synthetic shall be disclosed (5.26).

Only the term "synthetic", "laboratory-created" or "laboratory-grown" shall be used to describe synthetic diamonds (5.72). These terms shall not be abbreviated, e.g. "synth. diamond", "lab-grown diamond" or "lab-created diamond" and shall be equally as conspicuous and immediately precede the word "diamond".

The English terms laboratory-created diamond or laboratory-grown diamond may be used synonymously with synthetic diamond. Where there is no acceptable local direct translation of the English terms laboratory grown diamond or laboratory created diamond then only the translation of the term synthetic diamond shall be used.

NOTE 1 - The usage of the term "synthetic" whenever used alone in this book also refers to "laboratory-created" or "laboratory grown" these three terms are synonymous.

NOTE 2 - The word "laboratory" refers to the facility which produces the synthetic diamonds. This should not be confused with a gemmological laboratory that is dedicated to the analysis, authentication, identification, classification (grading) of diamonds.

### 4.3.1.2. Term designed to disguise

Any terms that are designed to disguise the fact that a stone is a synthetic diamond or that mislead the consumer shall not be used. Specifically: The words real, genuine and natural or the term cultured shall not be used to describe any synthetic diamond.

### 4.3.1.3. Name of firms

Names of firms, manufacturers or trademarks shall not be used as descriptors for synthetic diamonds, unless such names are clearly succeeded by the terms synthetic. E.g., a
business trading as Bianchi must describe its synthetic diamonds as "Bianchi Synthetic Diamonds" but not as "Bianchi Diamonds".

### 4.3.1.4. Irradiated synthetic diamond

A synthetic diamond which has been irradiated must be disclosed as a "irradiated synthetic diamond". The description "irradiated" shall be conspicuous and immediately preceding the words synthetic diamond.

NOTE - The designation "treated synthetic diamond" does not conform with these rules.

### 4.3.2. Imitation or simulant of diamonds

### 4.3.2.1. Description and display

Artificial materials that are used to imitate (5.48) a diamond shall be described by the correct name of the material in accordance with the clauses and annexes herein, or it shall be described by the words «imitation of diamond » 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 word « diamond » when making reference to a footnote explanation of the fact that the product is an imitation.

A gemstone, other than a diamond that may be represented as a diamond, shall always be referred to by its mineral name, it shall not be described as an imitation of diamond.

### 4.3.2.2. Names of firms

Names of firms, manufacturers or trademarks shall not to be used in connection with diamond imitations, unless such names are clearly succeeded by the terms as defined herein. E.g., a diamond business trading as Bianchi may describe its diamond simulants as "Bianchi Cubic Zirconia" or "Bianchi Diamond Simulants" but not as "Bianchi Diamonds".

### 4.3.3. Composite stones

Composite stones (5.15) shall be described by the words "doublet" (two parts) or "triplet" (three parts) or "composite" (more than three parts), and these words shall be immediately preceded or followed by the correct names of the components of the assembled product, 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" or "triplet" or "composite" 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.

NOTE 1 - A composite stone may also be called an assembled stone.
NOTE 2 - Composite stones in which all parts are composed of diamonds may be called composite diamonds (5.16).

## 5. Terms and definitions

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

### 5.1. Advertisement

the activity of attracting public attention to a product or business, as by announcements in the print, broadcast, or electronic media.

### 5.2. Annealing

a process that modifies the structure of a diamond.

### 5.3. Artificial products

products which are partially or completely made by man.

### 5.4. Artificial products which are not crystallised

products which are not crystallised, that imitate the appearance of diamonds, e.g. glass (5.39), lead glass (5.52), plastic, etc.

### 5.5. Artificially crystallised stones

artificial crystalline products with no known natural counterparts that imitate the appearance of diamonds, e.g. cubic zirconia, yttrium aluminium garnet (YAG), etc.

### 5.6. Assembled stone

see composite stones 5.15.

### 5.7. Bonding

the cohesion of two or more parts or layers. See composite stone clause 5.15.

### 5.8. Brilliant

a brilliant is a round polished diamond with a brilliant cut. See Annex 7.2.

### 5.9. Carat

unit of weight of a diamond, gemstone, synthetic stone or cultured pearl, one carat being equivalent to 200 milligram ( $1 / 5$ gram).

### 5.10. Cavity

a hollow or pitted area (a hole) within a stone reaching the surface. Also see fissure (5.32), fracture (5.35) and fracture filling (5.36).

### 5.11. Clarity

relative degree to which a diamond is free of internal characteristics/inclusions and external characteristics/blemishes.

### 5.12. Colour

relative absence (colourlessness) or presence of hue.

### 5.13. Commercial documents

any writing or electronic transmission that evidences, anticipates or concludes a Commercial transaction, including any agreement, memorandum of agreement, purchase order, blanket purchase order, identification report, blanket purchase agreement, purchase order acknowledgment, request for proposal, quote, offer, warranty, representation certification, guaranty, import documentation, packing list, bill of sale, memorandum of consignment, receipt and advertisements. Commercial documents include mandatory information of the seller, and when necessary the buyer.

### 5.14. Coating

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

NOTE - Coatings may be unstable.

### 5.15. Composite stone

artificial products composed of two or more, previously separate, parts or layers assembled by bonding (5.7) or other artificial methods. Their components may be natural and or artificial but at least one part must be diamond. See clause 4.3.3.

### 5.16. Composite diamond

composite stones in which all parts are composed of diamonds.

### 5.17. Crown

see Annex B 7.2 (a) 1 to 4).

### 5.18. Crystal

a crystalline (5.19) solid that consists of orderly arranged atoms, ions and/or molecules, bounded by natural plane surfaces with characteristic, specific orientations. Also see lead glass (5.52).

### 5.19. Crystalline/Crystallised

having crystal structure. A solid material consisting of orderly arranged atoms, ions and or molecules, forming a crystal lattice.

### 5.20. Cultured

the term "cultured" shall only be applied to "cultured pearls" and organic materials.
NOTE - See the definition "culture" in the CIBJO Pearl Book.

### 5.21. Cut

shape, proportions and finish of a diamond.

### 5.22. Cutting

a term in general use to mean shaping.

### 5.23. Culet

see Annex B 7.2 c).

### 5.24. Diamond

A diamond is a mineral (5.55) consisting essentially of carbon that crystallises in the isometric (cubic) crystal system.

NOTE 1 - A diamond may subsequently be modified by normal lapidary practices (5.57).
NOTE 2 - Its hardness on the Mohs' scale is 10 ; its specific gravity is approximately 3.52 ; it has a refractive index, $n_{\mathrm{D}}$, of 2.42.

### 5.25. Diamond simulants

see 5.66.

### 5.26. Disclosure

the act of providing all material information (5.54). To fully inform a purchaser, prior to or during a final sale.

### 5.27. Doublet

a composite stone consisting of two parts.

### 5.28. Facet

Flat polished surface on a finished (5.31) diamond. See Clause 7.2 Annex B.

### 5.29. Fancy shape

a trade name for polished diamonds other than round.

### 5.30. Filling

to introduce a substance that occupies whole or part of a void.

### 5.31. Finish

A term used to indicate the quality of diamonds polish (5.60) and the precision of the cut. See "symmetry" clause 5.71 .

### 5.32. Fissure

a very narrow opening; a fine fracture.

### 5.33. Fluorescence

degree of luminescence of a diamond (5.24), treated diamond (5.76) and synthetic diamond (5.72) when viewed under a long-wave ( 365 nm ) ultraviolet (UV) light source.

NOTE - This clause relates to colour and intensity of the fluorescent reaction of diamonds under standard long wave ultraviolet light ( 365 nm ) that is generally described in diamond reports.
5.34. Foiling
the application of a very thin layer of highly reflective metal applied to all or part of the pavilion (5.59) 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.

### 5.35. Fracture

an opening; a crack.

### 5.36. Fracture filling

the filling of diamond fractures with highly refractive glassy substances to pervade, spread throughout, occupy completely or make full, with the purpose of making the fracture less visible.

### 5.37. Gem

another term, often used as an adjective, to describe an exceptional gemstone noting perfection or very high quality. See gemstone clause (5.38).

NOTE — Only the term "Gem" shall be qualified with the terms "real", "precious", "genuine" and "natural".

### 5.38. Gemstone

natural inorganic, organic and biogenic materials which have been formed completely by nature without human interference. Gemstones are usually used in jewellery or objet d'art due to a combination of properties that provide them with beauty, rarity and relative durability.

NOTE 1 - For the purpose of this standard all clauses and examples referring to gemstones may also apply to precious stones and ornamental stones.

NOTE 2 - The durability of gemstones may vary based on their hardness, toughness and stability.
NOTE 3 - A gemstone may also be a combination of 2 or more minerals.

### 5.39. Glass

an amorphous substance, natural or artificial, solidified from a molten state, ordinarily consisting of a mixture of oxides (e.g. silicon, sodium, calcium, aluminium and lead oxides)=, see clause 5.4.

### 5.40. Genuine

actually possessing the alleged or apparent attribute or character.

### 5.41. Girdle

see Annex B 7.2 (f)

### 5.42. Grading

to classify cut diamonds in accordance with their degree of clarity, presence or absence of colour, cut and other factors that may describe an element of quality.

### 5.43. Grain

a unit often used in the trade to approximate the weight of a diamond or a pearl, a grain is equal to 0.25 ct .

### 5.44. Grainer

see grain (5.43). A "four grainer" is often used in the trade to describe a 1 carat cut diamond.

### 5.45. Graining

parallel structural lines or planes visible on the surface or interior of certain diamonds.

### 5.46. Heating

Modifying the appearance of a diamond by a thermal process, e.g. in a furnace, kiln or other heating apparatus.

NOTE - Heating is usually performed in diamonds to generate a black colour.

### 5.47. High Pressure High Temperature (HPHT)

a method that involves high temperatures in a high pressure environment that is used for altering the appearance of a diamond, or a synthetic diamond, and also to grow synthetic diamonds.

### 5.48. Imitation of diamonds

artificial products (5.3) that imitate the appearance of diamonds without having their chemical composition, physical properties or structure. See clauses 5.4, 5.5 and 5.70.

NOTE - A gemstone whose appearance (colour, cut) is similar to a diamond is not an imitation diamond, it shall be described by its own name, see clause 4.3.2.1.

### 5.49. Internal laser drilling

use of a laser to heat an inclusion in a diamond causing it to expand and create fine surface reaching fractures which in turn allow for a chemical treatment of the inclusion, generally changing the appearance of the inclusion from black to white.

### 5.50. Irradiated / Irradiation

exposing diamonds, gemstones, pearls, cultured pearls and artificial products to any form of irradiation which is normally controlled wholly or partially by man, usually to alter their appearance. Natural irradiation may cause a natural green colour in diamonds.

### 5.51. Laboratory-created stones, Laboratory-grown stones

see synthetic diamonds (5.72).

### 5.52. Lead glass

artificially produced glass (5.39) with distinct high content of lead oxide, also see clause 5.4.
NOTE - Lead glass is often referred to as "crystal glass" or "lead crystal glass". Also see crystal clause 5.18.

### 5.53. Laser drilling

burning a channel from the surface of a diamond to meet with an inclusion (generally black) with a laser; the channel being used as a conduit to allow for a chemical treatment of the inclusion, generally changing the appearance of the inclusion from black to white.

NOTE - The use of lasers to inscribe a diamond or synthetic diamond on its girdle does not constitute a treatment.

### 5.54. Material information

any information that if disclosed prior and or during the time of sale, would either alter the value, saleability or desirability of materials listed in clause 3, including any care, cleaning and/or maintenance requirements.

### 5.55. Mineral

a mineral is an element or chemical compound that is normally crystallised and that has been formed as a result of geological processes.

### 5.56. Natural materials

Materials that are completely formed by nature, without human intervention during its formation, that may subsequently be modified by normal lapidary practices (5.57) or treated.

### 5.57. Normal lapidary practices

methods used to fashion gemstones and artificial products which include sawing, grinding, cutting (5.22), faceting, polishing (5.62), carving, engraving, inscribing and drilling.

### 5.58. Ornamental stones

gemstones that are used in objets d'art.

### 5.59. Pavilion

see Annex B 7.2 (b) 5 and 6.

### 5.60. Polish

The overall condition of the facet (5.28) surface on a polished diamond (5.61). See clause 5.60.

### 5.61. Polished diamond

diamonds with a defined cut (5.21). Also see Annex B 7.2.

### 5.62. Polishing

the act of faceting a diamond or producing a polish on other gemstones and artificial products, usually produced by friction or abrasion.

### 5.63. Precious stones

see gemstones (5.38).

### 5.64. Real

genuine (5.40): not artificial (5.3). See clause 4.3.1.2.

### 5.65. Shape

outline of a diamond when viewed perpendicular to the table facet.

### 5.66. Simulant

see imitations clause 5.48.

### 5.67. Special care

additional care needed to preserve the appearance of natural materials or artificial products (5.3), or any alteration that may have been applied.

### 5.68. Specific information

a method to provide information to consumers in all publications, advertisements (5.1), communications, commercial documents (5.13) and at the time of sale, when materials have been subjected to a treatment that requires a combination of a verbal and written disclosure 4.1.1.1.2.

### 5.69. Stability

a measure of the ability of gemstones and organic substances to maintain their appearance under normal wear and care.

### 5.70. Stones

natural materials and artificial products used in jewellery with the exception of metals.

### 5.71. Symmetry

A grading term for the exactness of shape (5.65) and placement of facets (5.28)

### 5.72. Synthetic diamond

artificial product (5.3) having essentially the same chemical composition, physical properties and structure as that of a diamond, whichever method of growing is used.

NOTE 1 - The terms "synthetic", "laboratory-created" (5.51) and "laboratory-grown" (5.51) are synonymous.
NOTE 2 - In the event that the national jewellery association, which is a member of CIBJO, deems that there is no acceptable local translation of the English terms "laboratory-grown" (5.51) or "laboratory created" (5.51), then only the translation of the term "synthetic" should be used. See clause 4.3.1.1.

### 5.73. Synthetic stone

artificial product (5.3) having essentially the same chemical composition, physical properties and structure as that of their naturally occurring counterparts, e.g. synthetic moissanite, synthetic sapphire, etc.

### 5.74. Table

see Annex B 7.2 (a) 1.

### 5.75. Total Weight

the combined weight of multiple diamonds, the combined weight of multiple treated diamonds, the combined weight of multiple synthetic diamonds, or the combined weight of multiple imitations of diamonds.

### 5.76. Treated diamonds

diamonds altered by ways other than normal lapidary practices to change their appearance and or durability. See clause 4.2.2.

### 5.77. Weight

mass of a diamond, gemstone, pearl or cultured pearl, synthetic stone and other artificial products.

NOTE - The SI (Système International) generally uses the term mass instead of weight. Mass is a measure of an object's inertial property, or the amount of matter it contains. Weight is a measure of the force exerted on an object by gravity or the force needed to support it.

## 6. Annex A - Diamond treatments (informative)

A diamond may be treated to alter its colour and or clarity by anyone, or any combination, of the following methods:

- Coating (5.14)
- Foiling (foil-backed) (5.34)
- Fracture Filling (5.36)
- Heating (annealing) (5.46)
- High Pressure High Temperature (HPHT) (5.47)
- Internal Laser Drilling (5.53)
- Irradiation (5.50)
- Irradiation + annealing (5.50 and 5.2)
- Laser Drilling (5.53)


## 7. Annex $B-$ Contents of diamond grading reports (informative) (also see ISO 24016)

### 7.1. Diamond grading reports generally contain the following

- Reference to the standard used
- Identification of the stone as either a "diamond", "treated diamond", or "synthetic diamond".
NOTE - An identification report may be given when grading is not done.
- Weight
- Colour grade
- Long wave ultraviolet fluorescence
- Clarity grade
- Diagrams showing the positions of internal and external features
- Shape of the stone
- Measurements
- Proportions
- Girdle description
- Finish
- Cut
- Reference number
- Date
- A method to show the authenticity of the document.


### 7.2. Cut - Parts and facet arrangement of a round brilliant cut (informative)


a)

d)


Facet name
1 Table
2 Bezel/upper main
3 Star
4 Upper girdle/Upper halves
5 Pavilion main/Lower main
6 Lower girdle/Lower halves
7 Culet
Total number of facets

## Number of facets

1
8
8
16
8
16
0 or 1
57 or 58
7.3. Colour - Corresponding terms for colour grades (informative)

| GIA | CIBJO/IDC |  |  |  |  | Scan.D.N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | English | German |  | French | Italian |  |
| D | Exceptional white + D | Hochfeines Weiss + | D | Blanc exceptionnel + D | Bianco extra eccezionale + D | River ${ }^{\text {a }}$ |
| E | Exceptional white E | Hochfeines Weiss | E | Blanc exceptionnel E | Bianco extra eccezionale E | River ----------- |
| F | Rare white + F | Feines Weiss + | F | Blanc extra + F | Bianco extra + F | Top Wesselton F |
| G | Rare white G | Feines Weiss | G | Blanc extra G | Bianco extra G | Top Wesselton G |
| H | White H | Weiss | H | Blanc H | Bianco H | Wesselton H |
| I | Slightly tinted white I | Leicht getöntes Weiss | I | Blanc nuance I | Bianco sfumato I | Top crystal I |
| J | Slightly tinted white J | Leicht getöntes Weiss | J | Blanc nuance J | Bianco sfumato J | Crystal J |
| K | Tinted white K | Getöntes Weiss | K | Légèrement teinté K | Bianco leggermente colorito K | Top cape K |
| L | Tinted white L | Getöntes Weiss | L | Légèrement teinté L | Bianco leggermente colorito L | Cape L |
| M | $\begin{array}{cc} & \mathrm{M} \\ \mathrm{N} \\ & \mathrm{O} \\ \text { Tinted }\end{array}$ | Getönt | M | (r |  | Cape M |
| N |  |  | N |  |  | Cape N |
| $\bigcirc$ |  |  | O |  |  | Cape O |
| P |  |  | P |  |  | Cape P |
| Q |  |  | Q |  |  | Cape Q |
| R |  |  | R |  |  | Cape R |
| S |  |  | S |  |  | Cape S |
| T |  |  | T |  |  | Cape T |
| U |  |  | U |  |  | Cape U |
| V |  |  | V |  |  | Cape V |
| W |  |  | W |  |  | Cape W |
| X |  |  | X |  |  | Cape X |
| Y |  |  | Y |  |  | Cape Y |
| Z |  |  | Z |  |  | Cape Z |

### 7.4. Clarity — Corresponding terms for clarity grades (informative)

## Flawless (FL)

FL diamonds shall be free from internal characteristics / inclusions and external characteristics / blemishes when examined under $10 \times$ magnifications.

NOTE - The following do not disqualify a diamond from the Flawless grade:

- An extra facet on the pavilion which cannot be seen face up;
- Naturals totally confined to the girdle, which neither thicken the girdle nor distort its outline;
- Internal graining which is not reflective, white or coloured and does not significantly affect transparency


## Internally Flawless (IF)

IF diamonds shall be free from internal characteristics / inclusions and shall only possess external characteristics / blemishes when examined under $10 \times$ magnifications.

NOTE -The following does not disqualify a diamond from the Internally Flawless grade:

- Internal graining which is not reflective, white or coloured and does not significantly affect transparency.


## Very Very Slightly Included/Very Very Small Inclusions (VVS)

VVS diamonds shall contain minute internal characteristics/inclusions when examined under $10 \times$ magnification.
VVS1 diamonds shall contain minute internal characteristics/inclusions which shall be extremely difficult to observe when examined under $10 \times$ magnification. VVS2 diamonds shall contain minute internal characteristics/inclusions which shall be very difficult to observe when examined under $10 \times$ magnification

## Very Slightly Included/Very Small Inclusions (VS)

VS diamonds shall contain minor internal characteristics/inclusions when examined under $10 \times$ magnification.
VS1 diamonds shall contain minor internal characteristics/inclusions which shall be difficult to observe when examined under $10 \times$ magnification.
VS2 diamonds shall contain minor internal characteristics/inclusions which shall be somewhat easy to observe when examined under $10 \times \mathrm{magnification}$

## Slightly Included/Small Inclusions (SI)

SI diamonds shall contain noticeable internal characteristics/inclusions when examined under $10 \times \mathrm{magnification}$.
SI1 diamonds shall contain noticeable internal characteristics/inclusions which shall be easy to observe when examined under $10 \times$ magnification.
SI2 diamonds shall contain noticeable internal characteristics/inclusions which shall be very easy to observe when examined under $10 \times$ magnification.

## Included 1 or Pique 1 (11/P1)

I1/P1 diamonds shall contain internal characteristics/inclusions which are prominent when examined under $10 \times$ magnification. They shall also be visible face up to the naked eye.
NOTE - Internal characteristics / inclusions may also be visible face up to the naked eye in higher grades.

## Included 2 or Pique 2 (I2/P2)

12/P2 diamonds shall contain internal characteristics/inclusions which are very prominent when examined under $10 \times$ magnification. They shall also be easily visible face up to the naked eye, slightly reducing the brilliancy of the diamond.

## Included 3 or Pique 3 (I3/P3)

I3/P3 diamonds shall contain internal characteristics/inclusions which are extremely prominent when examined under $10 \times$ magnification. They shall also be very easily visible face up to the naked eye, reducing the brilliancy of the diamond.

## Index

Accepted trade practices, iv, v, vi
Advertisement, 8
Annealing, 8
Artificial products, vi, 1, 2, 8, 9, 12, 13, 14, 15
Artificially crystallised, 8
Assembled stone, 8
Bezel, 17
Bianchi Cubic Zirconia, 7
Bianchi Diamonds, 6, 7
Bianchi Treated Diamonds, 6
BIBOAH, iv
Blue Books, v, vi
Board of Directors, $v$
Bonding, 8
Brilliant, 8
Carat, 8
Cavity, 8
CIBJO, i, iv, v, vi, 1, 5, 8, 9, 14, 18
CIBJO Diamond Commission, vi
CIBJO Secretariat, v
Clarity, 8, 16, 19
Clarity grade, 16, 19
Classification, vi, 2
Coating, 5, 9, 16
Colour, 8, 16, 18
Colour grade, 16
colour grades, 18
Coloured Stone, iv
Commercial documents, 9
Commissions, iv, v
Composite, 7, 9
Composite stone, 7, 9
Crown, 9, 17
Crystal, 9
crystallised, 8
Culet, 10, 17
Cultured, 3, 9
Cut, 9, 16, 17
Cutting, 9
Date, 16
Diamond, i, iv, vi, 2, 7, 10, 16
Diamond simulants, 10
Diamond treatments, 16
Diamonds, iv, v, 1, 2, 4, 5, 6, 7
Disclosure, 2, 5, 10
Display, 3
Doublet, 10
Ethics, v
Executive Committee, iv, v
Facet, 10

Fancy shape, 10
Filling, 10, 16
Finish, 10, 16
Fissure, 10
Flawless (FL), 19
Fluorescence, 10
Foiling, 5, 10, 16
Fracture, 5, 11, 16
Fracture filling, 5, 11
Full disclosure, 2
Full written disclosure, 3
Gem, 11
Gemmological, v, 1
Gemmological Laboratory Book, 1
Gemstone, 11
Gemstone Book, 1
Gemstone/s, 11
Gemstones, v
Genuine, 11
Girdle, 11, 16, 17
Glass, 11
Grading, 1, 5, 11
grading reports, 16
Grain, 4, 11
Grainer, 12
Graining, 12
Heating, 5, 12, 16
High Pressure, 5, 12, 16
High Pressure High Temperature (HPHT), 12, 16
Hochfeines Weiss +, 18
Imitation, 7
Imitation of diamonds, 12
Imitations, 2
Internal laser drilling, 5, 12
Internally Flawless (IF), 19
Irradiated, 5, 7, 12
Irradiation, 12, 16
ISO, vi, 1, 5, 16
Jewellery, iv, v, 1
Laboratory-created, 6, 12, 14
Laboratory-created stones, 12
Laboratory-grown, 6, 12, 14
Laboratory-grown stones, 12
lapidary practices, 13
laser, 12, 16
Laser drilling, 12
Laser Drilling, 16
Lead glass, 12
Long wave ultraviolet fluorescence, 16
Loupe Clean (LC), 19

Lower girdle/Lower halves, 17
Made by Man, 8
Marketing, v
Marketing \& Education, v
Mass, 15
Material information, 13
Measurements, 4, 16
Mineral, 13
Mohs', 10
Names of firms, 6, 7
Natural, 2, 5, 12, 13
Ornamental stones, 13
Pavilion, 13, 17
Pavilion main/Lower main, 17
Pearl, iv, v, 1, 9
Pearl Book, 1, 9
Polish, 13
Polished diamond, 13
Precious Metals, v, 1
Precious Metals Book, 1
Products Sector, iv
Proportions, 16
Real, 13
Reference number, 16
Rounding, 3
Sector A, iv
Sector B, iv
Sector C, iv
Sectors, iv, v

Sectors and Commissions, v
Service Sector, iv
Shape, 13, 16
Simulant, 14
Slightly Included/Small Inclusions (SI), 19
Special care, 14
Specific information, 14
Stability, 14
Star, 17
Symmetry, 14
Synthetic, 2, 6, 7, 14
Synthetic diamond, 2, 6, 14
Système International, 15
Table, ii, 14, 17
Terminology, 1
Terms and definitions, 8
Top Wesselton G, 18
Total weight, 4
Treated, 2, 5, 15
Treated diamond, 2, 5, 15
Upper girdle/Upper halves, 17
Verbal disclosure, 3
Very Slightly Included/Very Small Inclusions (VS), 19
Very Very Slightly Included/Very Very Small Inclusions (VVS), 19
Weight, 3, 14, 15, 16
World Jewellers Vigilance, v
Written disclosure, 3

