

Gemstone Grading

Color is the ultimate value factor in grading gemstones because it is central to a gem's perceived beauty; it also can be the first clue to its identity. Grading is a measure of rarity and not necessarily beauty since opinions and styles change over time. Generally, the darker colors are more valuable, but there are significant exceptions—notably sapphire. Extremely dark tone will make most gems nearly black and extremely light tone will be almost white (colorless). The color description is a combination of three factors: hue, tone and saturation. *Hue* is the basic color impression as in violet, blue, green, yellow, orange, red and purple which are further defined by modifying hues. *Tone* is the light, medium, to dark color sensation. The strength or purity (degree of brown, pink or gray) is described as *saturation*. Specific color description is expressed precisely as tone, saturation and hue, for example: medium light moderately strong violetish blue.

The clarity grading system for gemstones was developed by the Gemological Institute of America and is similar to that used for diamonds. Identification of the stone places it in one of three categories determined by the number of inclusions typically found in that specific species of gem. Type I stones are usually “eye-clean” and consists of aquamarine, topaz, green tourmaline and tanzanite. Type II stones are usually included (having visible internal characteristics) and the group is made up of ruby, sapphire, all varieties of garnets, amethyst and peridot. Emerald and red tourmaline are virtually all of the Type III group as they almost always have eye-visible characteristics. There is no clarity grading applied to cabochon cut gems since they are usually opaque to translucent.

Type I Clarity

(VVS) minute inclusions are invisible to the naked eye, (VS) minor inclusions usually invisible, (SI1) noticeable characteristics usually visible, (SI2) noticeable and quite visible, (I1) inclusions have a negative effect on beauty or durability, (I2) severe effect on beauty or durability, (I3) severe effect on both factors, (Déclassé or Dcl) non-transparent.

Type II Clarity

(VVS) minor inclusions usually invisible to the naked eye, (VS) noticeable characteristics sometimes visible, (SI1) obvious inclusions apparent to the eye, (SI2) obvious and very apparent, (I1) Inclusions have a moderately negative effect on beauty or durability, (I2) severe effect on beauty or durability, (I3) severe effect on both factors, (Dcl) lack of transparency.

Type III Clarity

(VVS) noticeable inclusions usually invisible to the naked eye, (VS) obvious characteristics often visible, (SI1) prominent inclusions, (SI2) very prominent inclusions, (I1) moderately negative effect on beauty or durability, (I2) severe effect on beauty or durability, (I3) severe effect on both factors, (Dcl) stone is not transparent.

Natural gemstones are very rarely cut as precisely as diamonds. However, as with diamonds, the cutter will attempt to retain as much as possible of the original material since a larger gem generally is more valuable. When cutting is done in less industrialized regions of the world (e.g. India, Southeast Asia and East Africa) it is often performed with less sophisticated machinery—sometimes being worked completely with human-powered tools. These “native cut” gems will usually lack good proportions causing some American importers to have these gemstones re-cut to improve their appearance and salability. When gemstones are cut with deeper proportions or bulging sides they appear somewhat darker, which almost always improves their look. Common cutting faults effecting brilliance (light return) are windowing which leaves a washed out center and extinction, a darkening, which is caused by excessively deep cut or poorly proportioned shape. Other factors effecting cut grading include proportions, shape outline, balance and appeal.

Written by Van McMinn, G.G. (GIA)