

## Absorption Spectra

The absorption spectra of a diamond reflect the electromagnetic radiation absorbed by the stone over a visible range of wavelengths (approximately 400–800 nanometers). This is recorded on a graph that plots the transmittance against wavelengths. And it provides a unique “fingerprint” of the diamond.

## Carat Weight

A carat is a unit of metric measurement used for gems. One carat (ct.) equals 100 points, 200 milligrams, or 1/5 of a gram.

## Clarity Grade

**The FL Grade** (Flawless) describes diamonds in which a skilled observer does not see any inclusions or surface blemishes, after thorough examination at 10-power magnification under standardized lighting conditions.

**The IF Grade** (Internally Flawless) describes diamonds that have no internal characteristics observable under the conditions described above, but that may have minor blemishes confined to the surface.

**The VVS Grades** (Very Very Slightly Included) describe diamonds with very, very small inclusions that are difficult for a skilled observer to see, under the conditions described above.

**The VS Grades** (Very Slightly Included) describe diamonds with very small inclusions ranging from difficult to somewhat easy to observe, under the conditions described above.

**The SI Grades** (Slightly Included) describe diamonds with small inclusions that are easy or very easy to see, under the conditions described above. Occasionally, inclusions in the SI category are visible to the unaided eye.

**The I Grades** (Included) describe diamonds with medium or large inclusions that are usually obvious to the unaided eye, under standardized lighting conditions.

## Color Distribution

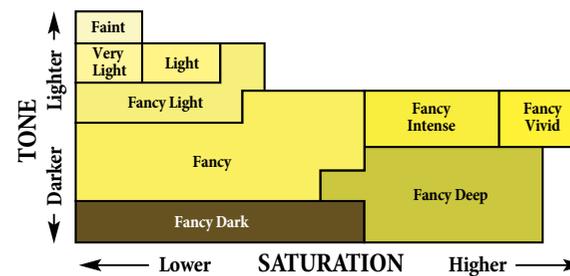
On colored lab-grown diamonds, color distribution refers to the homogeneity of color seen through the crown of the cut diamond shape. It is measured on a scale ranging from uneven to even (which is preferred).

## Color Grade

For colorless to light lab-grown diamonds, color is graded on a scale from “D” (colorless) to “Z”, shown below in yellow.



Colored lab-grown diamonds are distinguished by a combination of hue (the characteristic color), tone (lightness), and saturation (strength). Fancy colored lab-grown diamonds are graded on a scale from fancy light to fancy vivid. Colored lab-grown diamonds outside of the fancy range are rated as faint to light. The chart below depicts these variations for a yellow lab-grown diamond.



## Cut (Shape and Style)

Cut describes the silhouette or form created by a diamond’s contours and facets. Shapes vary from round to fancy cuts, such as emerald, oval, marquise, pear, heart, cushion, and triangle. And style includes variations of brilliant, stepped, and mixed cuts. Beautiful diamonds can be found in virtually any shape or style.

## Finish

Finish refers to the analysis of a diamond’s polish and symmetry. Polish relates directly to the smoothness and overall surface condition of the diamond. Symmetry relates to facet shape and arrangement, and the overall exactness of the stone’s contour and outline. Both are rated on a scale ranging from poor to excellent.

## Fluorescence

Fluorescence refers to a diamond’s capacity to emit a visible light when its atoms react to long- and short-wave ultraviolet rays. Fluorescence is measured for identification purposes and described on a scale from inert (none) to very strong.

## Lab-Grown Identification

Lab-grown (also known as synthetic or cultured) diamonds are man-made stones, typically created through high pressure and high temperature (HPHT) or chemical vapor deposition (CVD). Both methods create stones with essentially the same chemical, physical, and optical properties as natural diamonds. EGL USA identifies these diamonds with laser inscriptions.

## Plotting

A plotting diagram approximates a diamond’s style and shape, and notes its characteristics with these symbols.

### External Characteristics

-  Abrasion
-  Extra Facet
-  Nick
-  Pit
-  Polish Lines
-  Scratch

### Internal Characteristics

-  Bruise
-  Cavity
-  Chip
-  Cloud
-  Crystal
-  Feather
-  Needle
-  Pinpoint

## Proportions

Diamond proportions refer to the stone’s dimensions and facet angles, as well as the relationship between them. Measurements for round diamonds are indicated by minimum–maximum diameter x depth, in millimeters. Fancy shapes are indicated by length x width x depth.

