



Same stones as seen with an ultraviolet lamp (top) and normal lighting (bottom).

About Fluorescence

What is fluorescence?

Fluorescence is the visible light some diamonds emit when they are exposed to invisible ultraviolet (UV) rays. On a GIA diamond grading report, *fluorescence* refers to the strength, or intensity, of the diamond's reaction to long-wave UV, which is an essential component of daylight. The light emitted lasts as long as the diamond is exposed to the ultraviolet source.

Is fluorescence common?

Yes. Of the diamonds submitted to GIA over the past decade, approximately 25% to 35% exhibit some degree of fluorescence. However, only 10% of those show strengths of fluorescence that may impact appearance (i.e., strengths noted on laboratory reports as medium, strong or very strong). In more than 95% of the diamonds that exhibit fluorescence, the color seen is blue. In rare instances, the reaction is yellow, white or another color.

What impact does fluorescence have on the appearance of a diamond?

GIA studies show that, for the overwhelming majority of diamonds, the strength of fluorescence has no widely noticeable effect on appearance. In many instances, observers prefer the appearance of diamonds that have medium to strong fluorescence. In rare cases, some diamonds with extremely strong fluorescence may appear hazy or oily; fewer than 0.2% of the fluorescent diamonds submitted to GIA exhibit this effect.

Does fluorescence compromise the structural integrity of the diamond?

No. A diamond that fluoresces has the same integrity as one with no reaction to UV. Submicroscopic substitutions and/or shifts in the diamond structure can cause fluorescence as well as prevent it. Nothing in either instance inherently weakens or is bad for the diamond.

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