

Gemstone Lustre

By James Evans, FGA

A gemstone's lustre is a poetic description of its surface appearance.

Adamantine

'Adamantine' is derived from the Greek word 'adamas' ('unconquerable') – a reference to diamond's extreme hardness.

Gemstones with an adamantine lustre include: diamond (pictured), cubic zirconia and moissanite.

Sphene and zircon are often described as 'sub-adamantine'.



Vitreous

'Vitreous' is derived from the Latin word 'vitrum' ('glass').

Most gem species display a vitreous lustre, including: glass (pictured), apatite, beryl, iolite, peridot, quartz, scapolite, topaz, and tourmaline.

Chrysoberyl, corundum, kyanite, spinel and most species of garnet are described as 'bright-vitreous'.



Dull

The surface of a dull gemstone will scatter much of the light falling on it. This is often due to the material's softness preventing a high polish.

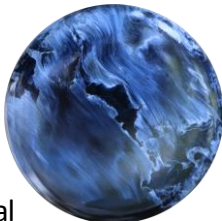
Gemstones with a dull or dull-vitreous lustre include: rhodonite (pictured), calcite, desert rose (gypsum) and fluorite.



Silky

'Silky' is a term used to describe *chatoyancy*; an optical effect caused by reflections from fibrous structures within a gem.

Gemstones with a silky lustre include: pietersite (pictured), malachite, satin spar (gypsum) and tiger's eye (quartz).



Pearly

The iridescence of a pearl results from *thin-film interference*; an optical effect caused by light reflecting from the pearl's concentric layers of aragonite and conchiolin.

Gems with a pearly lustre include: pearl (pictured), moonstone (feldspar) and mother-of-pearl.



Greasy

Were the 'greasy' gemstones more prominent in the Western market we might expect the term to be replaced by 'adipose' or even 'jadey'.

Gemstones with a greasy lustre include: serpentine (pictured), jadeite and nephrite.



Resinous

Natural gems with a resinous lustre are often imitated by synthetic plastics – with early examples now having significant value in their own right.

Gems with a resinous lustre include: amber (pictured), copal, lapis lazuli, phenolic (bakelite) and sphalerite.



Metallic

The metallic gems are typically carved as intaglios or cameos.

Gemstones with a metallic lustre include: pyrite (pictured), hematite and pallasites (meteorites containing peridot within an iron-nickel matrix).

Anthracite and cuprite are often described as 'sub-metallic'.



Waxy

As with the resinous gems, natural gems with a waxy lustre are prone to imitation by synthetic plastics. This is particularly true for opal, which was recreated in plastic from the 1970s.

Gems with a waxy lustre include: turquoise (pictured) and opal.

