

**NONMETALLIC *Light* MINERALS**

Name	Formula	Luster/Color	Streak	Hard	Breakage	Mineral Group	Mineral Structure	Specific Gravity	Uses & Special properties
<b>Alabaster</b> Gypsum #122 #333	CaSO <sub>4</sub> * 2H <sub>2</sub> O	<i>Waxy to earthy:</i> white, gray, colorless, brown	White	2.0	Fracture, massive (Cleavage clear)	Sulfate	Monoclinic	2.3	Alabaster (waxy massive)
<b>Amethysts</b> /crystal Quartz #244	SiO <sub>2</sub>	<i>Glassy:</i> vary in color purple colorless	Colorless	7.0	Cleavage	Silicate	Hexagonal	2.6	Amethysts  Quartz crystals (cubic zirconica)
<b>Beryl</b> #?	Be <sub>3</sub> Al <sub>2</sub> Si <sub>6</sub> O <sub>18</sub>	<u><i>Vitreous to resinous</i></u> green, colorless, blue, yellow, red (the rarest), and white	White	7.5– 8	Fracture;	Silicate	Hexagonal	2.76	Increasing alkali content. Emerald is green beryl Aquamarine is a blue or <u>cyan</u> variety of beryl golden beryl" called <i>heliodor</i> Colorless beryl is called <i>goshenite</i> Morganite, also known as "pink beryl" Red beryl ("bixbite") as "red emerald" or "scarlet emerald"
<b>Calcite</b> #93	Ca(CO <sub>3</sub> ) <sub>2</sub>	<i>Glassy – earthy:</i> colorless, white, pale yellow	White, Can be colorless	3.0	EVEN Cleavage; Conchoidal fracture	Carbonate	Hexagonal Rhombohedral	2.7	Fizzes in HCl; used in optical equipment; some fluorescent; used in cement & lime some varieties used in optics.
<b>Diamond</b>	C	<i>Clear, pink, blue, yellow</i>	None/white	10	Even	Native element	Isometric cubic	3.5-3.6	Hardness mineral, heat conductivity, crystal form
Feldspar (Orthoclase) #254	KAlSi <sub>3</sub> O <sub>8</sub>	<i>Glassy:</i> white, to gray, green, yellow	Colorless sometimes White	6.0	2 cleavage plane meet at 90° angles Conchoidal	Silicate	Monoclinic	2.5-2.6	Used in scouring powders, porcelains ceramics, glazes; insoluble in acid
Feldspar ( <i>Microcline</i> ) #355	KAlSi <sub>3</sub> O <sub>8</sub>	<i>Glossy:</i> pink, red, white, or crème	Colorless sometimes White	6.0	2 cleavage plane meet at 90° angle	Silicate	Monoclinic	2.55- 2.63	“Tartan twinning” structure
Feldspar ( <i>Plagioclase</i> ) #259	NaAlSi <sub>3</sub> O <sub>8</sub> CaAl <sub>2</sub> Si <sub>3</sub> O <sub>8</sub>	<i>Glassy:</i> gray, green, white, or reddish brown	White	6.0- 6.5	2 cleavage plane meet at 86° angle	Silicate	Triclinic	2.62	Used in ceramics; Striations present on some faces.

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<b>Fluorite</b> #50	CaF <sub>2</sub>	<i>Glassy:</i> green, yellow, bluish green, purple, clear, black	Colorless, white	4.0	Fracture; perfect cleavage in 4 directions	Halides	Octahedral, isometric	3.18	Some types fluorescence; used in making steel; noted for its color, concentrated sulfuric acid gives off fumes (hydrofluoric acid that attacks glass
<b>Halite</b> #47	NaCl	Colorless, red, white, blue, pinkish	Colorless/White	2.5	Perfect cleavage	Halides	Cubic	2.1-2.3	Table salt rock is called Rock salt; Taste is unique
<b>Milky Quartz</b> #244	SiO <sub>2</sub>	<i>Glassy:</i> white colorless	Colorless	7.0	Conchoidal;Shell like fracture	Silicate	Hexagonal	2.6	Used in optical equipment, glass manufacture electronic equipment,
<b>Muscovite (mica)</b> #225	KAl <sub>3</sub> Si <sub>3</sub> O <sub>10</sub> (OH) <sub>2</sub>	<i>Silky, pearly, glassy:</i> white, light gray, yellow, rose, green	Colorless	2.5-3.5	Basal cleavage	Silicate	Monoclinic	2.8-2.9	Used as an insulator in electrical equipment; breaks into thin elastic sheets; used as a lubricant & fireproofing material
<b>Rose Quartz</b> #244	SiO <sub>2</sub>	<i>Glassy:</i> clear, rose	Colorless	7.0	Shell like fracture	Silicate	Hexagonal	2.6	Used in optical equipment, glass manufacture electronic equipment,
<b>Satin Spar Gypsum</b>	CaSO <sub>4</sub> * 2H <sub>2</sub> O	<i>Dull Silky:</i> white, gray, colorless, brown	White	2.0	Basal cleavage	Sulfate	Monoclinic	2.3	Satin Spar (fibrous lines Twinning streaks
<b>Selenite Gypsum</b>	CaSO <sub>4</sub> * 2H <sub>2</sub> O	<i>Glassy to dull:</i> white, gray, colorless, brown, yellow orange	White	2.0	Cleavage 3 directions	Sulfate	Monoclinic	2.3	Selenite (cleavage) Transparent
<b>Sulfur #12 (Sulphur)</b>	S	<i>Resinous;</i> Yellow	White to yellow	1.5-2.5	Uneven shell like fracture conchoidal	Sulfide	Orthorhombic	1.5-2.5	Used in vulcanization of rubber, medicine, production of sulfuric acid; Smell; Used in fertilizers & insecticides
<b>Talc #224</b>	Mg <sub>3</sub> (OH) <sub>2</sub> Si <sub>2</sub> O <sub>10</sub>	<i>Pearly to greasy waxy:</i> white, apple green	White	1.0	Uneven fracture Lamerer	Silicate	Monoclinic	2.6-2.8	Used for talcum powder; Waxy, soapy, greasy feeling; Cosmetics and some papers