
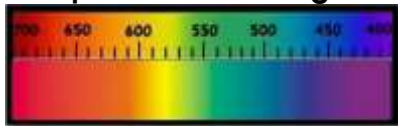



Attention: this version has been completed with Google Translate , it certainly contains errors or inaccuracies.

Technical data sheet - general: Prasiolite

Gemma – names	(Italian -prasiolite) (english - prasiolite) (French - Prasiolite) (Spanish – Prasiolita) (Portuguese - Prasiolita) (Thai – ฟราซีโอลิต Phrāsixol it)	(German - Prasiolith) (Arabic – براسيولايت brasyulayt) (Russian – прازیолит praziolit) (Mandarin -水杨石 Shuǐyángshí) _ (Swahili - prasiolite) (Hindi - प्रेसोलाइट presolait)	photo 
Colors (GIA)	Natural prasiolite is a very light green (called green leek) and translucent. The darkest green quartz it is generally the result of an artificial treatment. Much of the prasiolite sold today is light in color and saturation. The small stones barely show their green. Low-carat stones are usually those that exhibit a rich green color.		
Cause of Color	The celery green color is due to iron (Fe ²⁺). Prasiolite should not be confused with rock crystal containing green inclusions (for example actinolite). Naturally Heated Amethyst: Small amounts of amethyst are heated by natural processes. It is found where a rock unit containing amethyst has been heated by younger lava flows or nearby intrusions. This process can cause the color to change from purple to green. Some amethysts can be transformed into green varieties by heat treatment at 400–500°C when the interstitial Fe ³⁺ changes to Fe ²⁺ . This color is stable up to 600°C.		
Classification	Mineral class Oxides - tectosilicates	Species – Group (mineral) Quartz	Variety Green Quartz (Prasiolite)
Optical properties	Specific Gravity: 2.60-2.70 Municipality: 2.65	RE: 1,544 to 1,553 Polariscope :DR (bull's eye in the polariscope) Birefringence: 0.009	Character optical Uniaxial positive Pleochroism Very weak dichroism: light green - pale green
	Luster (gloss) – lustre of fracture Vitreous - vitreous		Dispersion (fire) 0.013
Light	Fluorescence SWUV: Inert LWUV: Inert		Phosphorescence NO
Form	Crystal clear dress Hexagonal prisms Melting point: 573 (transformation)-1470 °C	Phenomenal optical effects Chatoyancy Asterism (rare 4/6/12 rays)	crystalline system Trigonal Crystal class
Chemical formula	Silicon dioxide SiO₂		Spectrometer image  Not indicative, heated stones may show a broad band at 720 nm
Fracture	Cleavage Weak along the dominant rhombohedral axis	Breaking- Parting SI Gemination by penetration (read Brazilian and Dauphiné) and by contact (Japanese)	Fracture conchoidal
Durability	Hardness (Mohs) - Absolute 7; 100	toughness Fragile-very fragile	Stability (heat, light, chemicals) Susceptible to light and heat

Clarity-characteristics	<p>Typical Inclusions: Huge variety of inclusions such as liquid and biphasic inclusions golden rutile needles ("Venus hair"), black tourmaline crystals, green actinolite fibers, musky green chlorite, dark red hematite, goethite, etc. Twinning (Brazilian law, Japanese law, dauphiné etc.) is also present in this form of quartz.</p>	
	<p>Type II Normally included</p>	<p>Transparency (commercial) - diaphanousness Transparent, translucent, opaque</p>
Deposits - types of rocks	<p>Quartz (including green) is found in epithermal veins; it is a characteristic mineral of granites and granitic pegmatites and is found in sandstones and quartzites. It occurs in hydrothermal metal deposits and carbonate rocks where it is common.</p> <p>California-Nevada border , just north of Reno, amethyst, citrine, and green quartz (prasiolite) are found together in crystal clusters in debris. These crystals, found loose in rocky and sandy debris, appear to have been eroded from cavities and vesicles in the inaccessible cliffs above. Quartz was deposited in these spaces by the slow mixing of silica migratory solutions. Low-grade radiation over a large geologic time span has promoted the alteration of ferric and ferrous quartz to its amethyst color. Secondary, high-temperature, extruding volcanic bodies are thought to be responsible for the subsequent color change to citrine or green quartz.</p> <p>Age : The quartz found on the surface today is believed to have formed over 250 million years ago in fissures in rocks that lay a mile or more below the surface of the earth.</p>	
Characteristics of rough stones	<p>6-sided prism terminating in a 6-sided pyramid (typical), druze, fine-grained to microcrystalline, massive with frequent horizontal streaks.</p>	
Main deposits	<p>Natural prasiolite is rare and is produced by natural heating of amethyst. Relevant deposits are located in California, USA (Susanville). Poland (Sokolowiec , Kaczawskie and Lower Silesia). Other deposits are: Tanzania, Uruguay; Madagascar; Thailand; Bolivia; India; Mozambique; Unknown; China; Brazil (Montezuma, southern Bahia); Mexico, Zimbabwe, Namibia (Farm Rooisand , Gamsberg) and Canada (Thunder Bay).</p>	
Year of discovery	<p>Early 20th century: the discovery of this mineral dates back to the early 19th century.</p>	
History	<p>The first natural prasiolite was found in the early 19th century in the vicinity of Suszyna – Mrówieniec (Lower Silesia, Poland) and Płóczki Górne in Lower Silesia, Poland. Since the 1950s, nearly all natural prasiolite has come from a small Brazilian mine, but it has also been mined in the Lower Silesia region of Poland. Naturally occurring prasiolite has also been found in the Canadian Thunder Bay area .</p> <p>As of February 2019, the only commercial mine producing prasiolite is in Brazil.</p> <p>Name : The word <i>prasiolite</i> literally means "green-scallion colored stone" and comes from the Greek π ράσον / prason meaning "leek" and λιθος lithos meaning "stone". The mineral was given its name for its green color appearance.</p> <p>The name prasiolite should not be confused with prasolite (a green variety of the chlorite group) and praseolite which is the green variety of cordierite.</p> <p>The name (rock) crystal comes from the Greek word <i>krystallos</i> , meaning ice , because quartz was thought to be ice formed by the gods. Since the Middle Ages, crystal balls made of rock crystal have been used to predict the future.</p> <p>The name quartz , on the other hand, comes from the Slavic word kwardy which means "hard".</p> <p>Commercial names : Green Quartz, Green Amethyst, vermarine , lime citrine/ citrine cedar, Veregreen and Amegreen . Green quartz is sometimes incorrectly called green amethyst , a misnomer under US <i>Federal Trade Commission guidelines</i> .</p> <p>Variety: -</p>	
Attributed properties	<p>Prasiolite is said to foster compassion, encourage self-acceptance, self-respect, and bring spiritual ideals into everyday life .</p> <p>It helps to energetically connect the physical aspects of the human self with the spiritual aspects of the higher self and activates the healing vibrations, which flow from the core of the Earth, to all levels, both physical and spiritual .</p>	

	<p>This gemstone helps ease the discomfort of those who have difficulty expressing their emotions by removing any discordant energy and filling the space with a renewed yearning for growth.</p> <p>Planet: Mercury Month: August Zodiac sign: Scorpio and Capricorn Chakras: Solar Plexus and Heart</p>		
Treatments	<p>Prasiolite is a rare stone in nature ; the artificial one is produced by the treatment thermal of the amethyst . Currently, nearly all prasiolite on the market comes from a combination of heat treatment and ionizing radiation (cobalt - ⁶⁰ or gamma-E), however in sunlight, the color fades easily.</p> <p>It has long been known that amethyst from specific locations can turn green rather than the expected, and more common, citrine yellow when subjected to controlled induced heating. For the most part, gem-quality green quartz is produced by exposing amethyst to high temperatures for a specific amount of time. Even exposing amethyst to temperatures between 140°C and 380°C for one hour is sufficient to artificially change the purple to green or yellow.</p> <p>To obtain the aqua -aura treated variety , the quartz is heated to 871°C in a vacuum , then gold vapor is added inside the treatment chamber. The gold atoms fuse to the crystal surface, which gives the crystal an iridescent metallic sheen.</p>		
Synthetic counterpart	<p>Today rock crystal is used in lamps, lenses and in the production of glass and precision instruments. Synthetic rock crystal has been produced since the 1950s for use in watches.</p>		
Can be confused with	<p>Green topaz (separable by optical character, RI, birefringence, SG, appearance), green sapphire (separable by RI, birefringence), green spinel (separable by RI, SG, optical character), scapolite (exterior, optical character, inclusions), green feldspar (separable by RI, birefringence, SG, external appearance).</p>		
Indicative gemological tests	<p>Gemological tests are mainly focused on the separation of natural prasiolite from the treated one.</p>		
Value (2021)	High : 4+ \$/ct (untreated) under the carat	Medium: \$1/ct 1-3 carats	Low: \$0.5/ct 3 carat+
Typical cut	<p>Prasiolite (Mohs hardness 7) is a resistant stone with no cleavage planes, like other quartzes. For this reason it is suitable for use in almost all types of jewelry including rings, bracelets, pendants, earrings, brooches, beads, as well as figurines, engravings and small sculptures.</p>		
Famous stones	<p>There are no known buds of this variety.</p>		
Record stones	<p>There are large stones, but they are generally not advertised due to their low value.</p>		