

## PRASIOLITE

### Green Amethyst ....a misnomer

Prasiolite is one of the green colour varieties of crystalline quartz and very rare in nature. Other few important varieties are Amethyst (purple), Citrine (yellow), Rock crystal (colourless).

The mineral was named due to its green-colored appearance. The name "Prasiolite" is derived from two Greek words: prason, which means "leek;" and lithos, which means "stone". Prasiolites are sometimes misnamed as "Green Amethyst", possibly because amethyst is the starting variety and also it sounds more rare and valuable. But Federal Trade Commission restricts the use of the



term "Green Amethyst".

Prasiolite is an exciting gem having high transparency and great durability. It belongs to trigonal crystal system and has a hardness of 7 on Mohs scale. It's specific gravity is 2.65. It's Refractive index is 1.544 to 1.553 with a birefringence of 0.009. Under ultraviolet fluorescence it is Inert. Prasiolite contains inclusions like crystals, negative crystals, two-phase inclusions, liquid inclusions and partially healed fractures.

Prasiolites are mostly found in Brazil, Tanzania, Mozambique, China, Madagascar, Mexico, Thailand, India etc. Amethyst from the Montezuma area of Brazil is known for its purple color altering to green when subjected to heat treatment (Webster, 1978). Exposure of amethyst to temperatures ranging from

140°C to 380°C for one hour is sufficient to artificially alter its purple colour to green or yellow. It can also be produced by combination of heat treatment and irradiation on amethyst or citrine quartz. Colour of such gems may fade in sunlight. Most prasiolites on the market are heat treated amethyst.

Prasiolite or so-called 'Green Amethyst' can be lab grown by the hydrothermal method. It is usually found in a vivid mint-green or blue-green colour rather than the pale green of prasiolite. The unnatural colour is usually a sure sign that it is synthetic.

GII is a renowned institute for imparting gemmology training and contributes to trained manpower. It is a SIRO Institute and well known for testing of gems, diamond jewellery and grading of diamonds to assist gem and jewellery industry. Advanced gem testing methods are used to detect and identify different gemstones. The main objective of GII is to provide testing reports to customers and GII certificates add value to their goods.

### ***Bibliography***

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