



Minerals

Muscovite

$\text{KAl}_2(\text{Si}_3\text{Al})\text{O}_{10}(\text{OH}, \text{F})_2$ (Mica Group)

Crystallography:

Monoclinic; $2/m$. Distinct crystals rare; usually tabular with prominent {001}. Usually in lamellar masses or small flakes. Foliated in large to small sheets.

Physical Properties:

Cleavage: {001} perfect; may be split into very thin sheets. Folia flexible and elastic.

Hardness: 2.0-2.5.

Specific Gravity: 2.76-2.88.

Luster: Vitreous to silky or pearly.

Color: Colorless and transparent in thin sheets. Pale shades of green, gray, yellow, or brown in thicker blocks; translucent.

Streak: White.

Composition/Features:

A K-aluminosilicate hydroxide of the Mica Group characterized by its highly perfect cleavage and light color. Distinguished from phlogopite by non-decomposition in sulfuric acid, and from lepidolite by not giving a crimson flame. Gives water in the closed tube.

Occurrence/Use:

A common rock-forming mineral characteristic of granites and granite pegmatites. Also forms chief constituent of some mica schists.. As a sheet mica, used for high dielectric and heat-resisting properties in the manufacture of insulating materials in electrical apparatus. Also ground and used as a filler and fireproofing material.