



Minerals

Phlogopite

$\text{KMg}_3\text{Si}_3\text{AlO}_{10}(\text{F}, \text{OH})_2$ (Mica Group)

Crystallography:

Monoclinic; $2/m$. Usually in six-sided plates or in tapering prismatic crystals; also in foliated masses.

Physical Properties:

Cleavage: {001} perfect. Folia flexible and elastic.

Hardness: 2.5-3.0.

Specific Gravity: 2.86.

Luster: Vitreous to pearly.

Color: Yellowish-brown, green, white; transparent in thin sheets.

Streak: White.

Composition/Features:

A Mica Group mineral characterized by its micaceous cleavage and yellowish-brown color. Distinguished from muscovite by its decomposition in sulfuric acid and from biotite by its lighter color. Phlogopite represents the pale-colored, low-iron part of a single phase series with biotite. Fusible at 4.5-5. Gives water in the closed tube.

Occurrence/Use:

Found in metamorphosed Mg-rich limestones, dolomites, and ultrabasic rocks. A common mineral in kimberlites. Used chiefly as an electrical insulator.