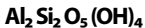




Minerals

Kaolinite



Crystallography:

Triclinic; $\bar{1}$. In very minute, thin, rhombic or hexagonal plates. More commonly in clay-like masses.

Physical Properties:

Cleavage: {001} perfect; flexible, inelastic. Usually unctuous and plastic.

Hardness: 2.0.

Specific Gravity: 2.6.

Luster: Usually dull earthy; crystal plates pearly.

Color: White, often stained brown or gray by impurities. Translucent to opaque.

Streak: White.

Composition/Features:

One of a group of substances known as the clay minerals (essentially hydrous aluminum silicates). Kaolinite shows little compositional variation, and is nearly impossible to distinguish from other clay minerals without X-ray tests. Infusible and insoluble.

Occurrence/Use:

A common mineral, kaolinite always forms secondarily by weathering or hydrothermal alteration of aluminum silicates, particularly feldspar. It is the chief constituent of kaolin or clay—one of the most important of the natural industrial substances. Used in making bricks, pottery, china, ceramics, and as filler in paper.