DIS-MIN-US-NC-Muscovite Mica-Hiddenite, Gaston County

Muscovite is the most common mineral of the mica family. It is an important rock-forming mineral present in [igneous](http://geology.com/rocks/igneous-rocks.shtml), [metamorphic](http://geology.com/rocks/metamorphic-rocks.shtml), and [sedimentary rocks](http://geology.com/rocks/sedimentary-rocks.shtml). Like other micas it readily cleaves into thin transparent sheets. Muscovite sheets have a pearly to vitreous luster on their surface. If they are held up to the light, they are transparent and nearly colorless, but most have a slight brown, yellow, green, or rose-color tint.

The ability of muscovite to split into thin transparent sheets - sometimes up to several feet across - gave it an early use as window panes. In the 1700s it was mined for this use from [pegmatites](http://geology.com/rocks/pegmatite.shtml) in the area around Moscow, Russia. These panes were called "muscovy glass" and that term is thought to have inspired the mineral name "muscovite."

Muscovite is a potassium-rich mica with the following generalized composition...

KAl2(AlSi3O10)(OH)2

In this formula potassium is sometimes replaced by other ions with a single positive charge such as sodium, rubidium, or cesium. Aluminum is sometimes replaced by magnesium, iron, lithium, chromium, or vanadium.

Sheet muscovite is an excellent insulator, and that makes it suitable for manufacturing specialized parts for electrical equipment. Scrap, flake, and ground muscovite are used as fillers and extenders in a variety of paints, surface treatments, and manufactured products. The pearlescent luster of muscovite makes it an important ingredient that adds "glitter" to paints, ceramic glazes, and cosmetics.