

## MICA.

The name *mica* covers a class of minerals consisting of silicates of alumina and an alkali. The micas all belong to the monoclinic system, and are characterized by an eminently perfect basal cleavage, splitting, easily, into very thin sheets which are flexible and somewhat elastic. The varieties of most commercial importance are *muscovite* and *phlogopite*.

*Muscovite*, also known as *common mica*, *white mica*, and *potash mica*, is that in which potash is the main, or only alkali present. Though occasionally found colourless, it usually varies from yellowish to brown or green. It is of vitreous lustre, and in thin sheets is transparent.

*Phlogopite*, *amber mica*, or *magnesia mica* is a high magnesian mica. Its colour ranges from a light amber to a brownish red, and, in thin sheets, it is transparent or subtransparent.

Muscovite is liable to contain dendritic inclusions, stains or blotches of garnet, magnetite, and hematite, and, in common with the other micas, embedded between the laminæ flattened inclusions of quartz. Calcite and apatite, in addition to quartz, frequently occur embedded between the laminæ of phlogopite crystals.

## USES.

Mica finds a number of uses in the electrical industry on account of its dielectric strength, the ease with which it may be split into thin, flexible sheets, and in some cases on account of its transparency.

The following is a partial list of its uses in this industry: Motor and dynamo winding—commutator ring and segment insulators; electric lights—discs for interior insulation of light sockets, covers for fuse boxes; telephones—long, narrow slips on which fuses are mounted; electric heaters—pieces on which the resistance wire is wound, forming the heating elements of toasters, sad irons, etc., etc., spark plugs—the insulation of some gasoline engine spark plugs is made of mica.

The mica is furnished to the consumers split to the necessary thinness and sometimes cut to shape. It must be free from