

CHARLES B. CHRYSTAL CO., INC

689 Mamaroneck Ave.
Mamaroneck, NY 10543
Tel: 914 777 3330 Fax: 914 777 3035

WEB SITE: www.cbcrystal.com

E-Mail: info@cbcrystal.com

INDUSTRIAL MINERALS SINCE 1897

TYPES AND CHEMICAL COMPOSITION OF MICAS

There are three naturally occurring types of Mica and one synthetic grade of mica commercially available. Micahave high aspect ratios, are flexible and compressible. They are used in paints, sealants, plastics, cosmetics, artificial stone and other manufacturing.

PHLOGOPITE MICA:

$\text{KMg}_3(\text{Si}_3\text{AlO}_{10})(\text{OH},\text{F})_2$
Magnesium substituted mica
Golden or tan color
Stable at high temperatures
Available as powder, flakes and sheets

BIOTITE MICA:

$\text{K}(\text{Mg},\text{Fe})_3(\text{Si}_3\text{AlO}_{10})(\text{OH},\text{F})_2$
Iron substitutes mica
Black in color
Least available of all mica, mostly available as coarse grades

MUSCOVITE MICA:

$\text{KAl}_2(\text{Si}_3\text{AlO}_{10})(\text{OH},\text{F})_2$
Aluminum substituted mica
Green or Silver in color
Most widely available type

FLUOROPHLOGOPITE:

$\text{KAl}_2(\text{Si}_3\text{AlO}_{10})\text{F}_2$
Fluorine substituted, aluminum mica
Does not occur in nature, one of the few purely synthetic minerals
Extremely heat stable, 1000C
Brilliant white color
Available in finely ground 10 micron grades up to 3000 micron