GROUND MICA

Grinding of Mica Scrap properly cleaned by removing all types of foreign particles produces ground mica. They are tough and inert to most of the chemicals and thermal conditions while retaining elasticity and slipperiness far superior to conventional ground minerals or rocks.

Major applications includes Roof coating, Wall papers, Well-drilling mud, Paint pigment extender, fillers for plastic-rubber goods and flux material in welding electrodes.

Mica powder as a pigment is used in a binder like varnish or shellac to create metallic finishes. The advantage mica has over metal flakes is its inability to tarnish. It grows in a layered structure, kind of like an onion, and has a mother of pearl translucency. This is what gives mica powder its fantastic reflective quality. When these mica platelets are ground, they create a particle that is many faceted. Since mica is an inert mineral, it does not chemically react with any binder during or after application.

As with all pigment, the size of the particle of color is important and with some mica there is a choice between regular and micro which is extra finely ground.

Mica can be mixed together for creativity and precision when matching and creating coatings. In the past, mixing of customized metallic coatings was hazardous because airborne metallic powders are very toxic.

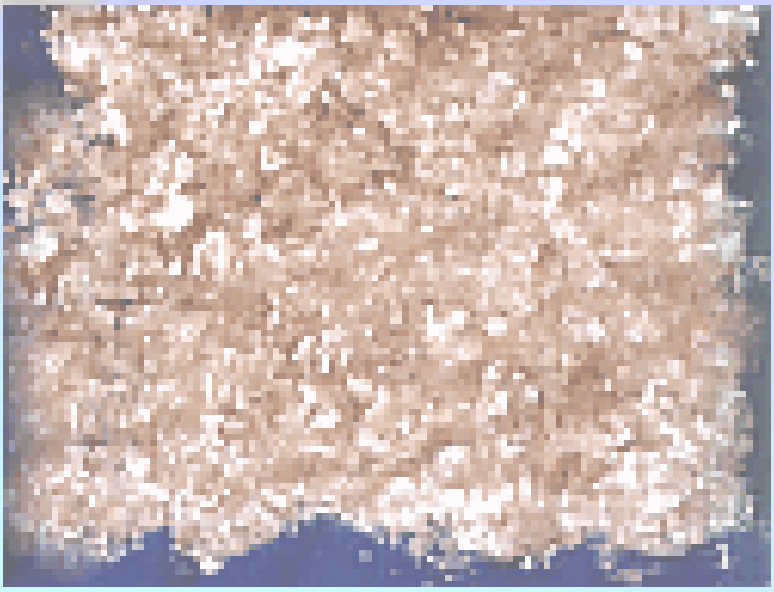
This makes for a more opaque and even surface. The pigment adheres to the surface of the binder. The binders of choice for this technique are the traditional linseed oil gilding size or the modern water based acrylic gilding sizes. These sizes can be pigmented with tinting pastes exploding creative possibilities.

TYPICAL PROPERTIES

Ground Mica has typical characteristics for various applications:

- Highly responsive to the action of light, heat, electricity, water & other chemicals.
- Transmits and reflects light to produce decorative effects and also prevents penetration of sun rays, moisture, heat & gases etc. on the surface it is coated with.
- Produces stiffening effect on calendared sheets.
- Have very high lubricating values.
- Produces leafing effect in liquids due to low specific gravity and as such remains uniformly disperse over the surface of liquid vehicles.
- Have excellent dielectric and thermal insulation properties due to inherent properties of natural mica.
- Has very little abrasive effect and can easily get wetted by resin and dyes.
- Has excellent anti-sticking properties and as such, during vulcanization it prevents sticking and movement of sulfur, at the same time, it permits the air bubbles to escape.
- Has re-enforcing and strengthening effect in the products with which it is mixed, hence prevents rupturing and improves adherence.

MICA FLAKES



Mica Flakes are crushed and flaked in Hammer Mils.

Appliaction:

6 Mesh: Acts as mud additive in Oil well.

10 Mesh: Acts as flocking material and provides glittering effects. Mainly used in Christmas ornaments, display materials, artificial snow.

16 Mesh: Provides thermal insulation and decorative finish. It is mainly used in concrete and stone bricks.

20 Mesh: Prevents sticking and improves weather proofing. It is used as an asbestos substitute. Mainly used in asphalt roofing, felt & shingles.

30 Mesh: Acts as disinfectant in explosives and absorbent in automotive break shoes.

Calcined Flakes

Calcined Mica Flake is produced by grinding Mica Scrap properly cleaned by removing all types of foreign particles there after Calcining the raw material in a Rotary Kiln to out gas inter laminar water completely. They exhibit much superior properties than normal flakes.

They are tough and inert to most of the chemicals and thermal conditions while retaining elasticity and slipperiness far superior to conventional ground minerals or rocks.

MICA POWDER

Dry Ground Powder

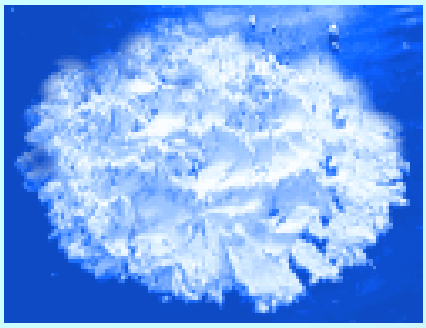
Dry Ground Mica Powder is processed in Pulverizing Machine up to 150 Mesh. This is mainly used

60 Mesh: It provides protective coating & improves dielectric, mechanical & electrical properties in wires and cables, Increases heat and chemical resistance in plastic or cement pipelines. It provides antismog & reduces cracking due to low expansion shrinkage & heat and chemical resistant properties in adhesives, plastic & rubber.

100 Mesh: Acts well as flux for high corona resistance in welding electrodes. It adds decorative finish, glittering effect and luster in texture paints, ceiling tiles.

Wet Ground Powder

Wet Ground Mica powder is processed in a ball chaser mill machine in which mica is subjected to grinding with water for several days. After grinding cycle is complete, they are dried and passed through a particle separator machine and sieved/classified. The main uses are:



100 Mesh: For architectural effects in texture paints, improved physical properties in ceiling tiles and increase weather proofing in paints.

200 Mesh: Due to high lubricating properties anti abrasion properties is used as mold release and decorative finish for Air Bags, tyre lubricants etc.

325 Mesh: Efficient Extender in Paint Pigments, Exterior paints aphid infestation control, fillers in plastic & hard rubber, glittering effect in cosmetic & automotive paints.

SPECIAL POWDER

Calcined Powder

Calcined Mica Powder mica is produced by grinding Mica Scrap properly cleaned by removing all types of foreign particles there after Calcining the raw material in a Rotary Kiln to out gas inter laminar water completely. They exhibit much superior properties than normal Dry Ground Powder.

They are tough and inert to most of the chemicals and thermal conditions while retaining elasticity and slipperiness far superior to conventional ground minerals or rocks.

Micronised Mica Powder

Micronised Mica Powder is produced by regrinding of pulverized 100 mesh powder by Turbo Rotor or Jet size reduction machines. This is mainly used as:

325 - 500 Mesh: To improve exterior durability, increase moisture resistance, weather proofing and corrosion resistant in Zinc & metal primers particularly for ships.

500 - 1000 Mesh: Imparts heat resistance, impact strength, improve dielectric properties, enhances thermal & electrical insulating characteristics in Plastic, Paper, Rubber, paints & cosmetics.

Also used in Lubricants, grease, fire extinguishers, fabrics, printing materials, dry color sealant, anti-friction compounds etc.