Vaaidehi Minerals

We Add Value to your Products

An ISO 9001 :2008 Certified Company

Inspiring quality & performance for satisfying our customer needs is the #1 and only aim of our management team.

Vaaidehi Minerals is a part of nearly 10 years old Vaaidehi Group of companies.

We are engaged in processing & distribution of industrial minerals like Talc, Mica, Dolomite, Quartz, Feldspar, Calcite, China Clay, Barites etc. and,
Specialty chemicals like Zinc Stearate, Dibasic Lead Stearate, Calcium Stearate, Ca-Zn Stabilizer, Ca-Pb Stearate, PVC Stabilizer and other metal Stearates etc.

We have an inhouse developed processing system with a capacity of processing 72,000 MT of material per annum.

Advantages to our Clients:

- Mining Advantages
- Processing Advantages
- Price Advantages
- Quality Assurance with
- Time Bound Delivery

Natural Mica / Muscovite Mica (Powder & flakes):

Mica is chemically a Potassium Aluminium silicate with a chemical formula [SiO2,Al2O3, K2O,Fe2O3,MgO,CaO,Hg2O]. It is described as faster dispersion, weather resistant, high degree insulation and aberration resistant. India is the single largest source of mica in the world. Muscovite Mica is the best variety available from Rajasthan.

Mica is a dry sultry powder chemically inert, immune to climatic variations, non toxic, tough and water proof with excellent anti sticking property. Mica is highly responsive to the action of light, heat, and electrical energy. This makes Mica a very essential mineral in our day-to-day life.

It is used in paint, rubber, plastics, welding rods, printing materials, dry fire extinguishers, greases, oil drilling, lubricants, glass & ceramic FLUX. Mica is also used in decorative coatings on wallpaper, concrete, stucco, and tile surfaces. It also is used as an ingredient in flux coatings on welding rods, in some special grease, and as coatings for core and mold release compounds, facing agents, and mold washes in foundry applications.

Our Standard Mica Grades:

Mica Grades	VM - P200	VM - P300	VM - SF	VM - UF
Product Name	Industrial grade mica powder	Industrial grade mica powder fine	High grade mica flakes	Natural mica grounded flakes
Particle Size	200 mesh	300 mesh	Flakes	Flakes
Top cut	50 micron	40 micron	-	-
SiO2	51% - 54%	51% - 54%	51% - 52%	50% - 52%
Al2O3	30% to 32%	30% to 32%	30% to 31%	29% to 31%
MgO	0.5%	0.5%	0.5%	0.5%
CaO	> 1%	> 1%	> 1%	1%
Fe2O3	3% to 3.2%	3% to 3.2%	3% to 3.2%	3% to 3.5%
MgO	0.5%	0.5%	0.5%	0.5%
K2O	8% to 8.5%	8% to 8.5%	8% to 8.5%	8% to 9%
Na2O	0.5%	0.5%	0.5%	0.5%
LOI	4% to 5%	4% to 5%	4% to 5%	4% to 6%

CST/VAT	2% CST against 'C' Form Otherwise 5%
Delivery	3 To 10 Days
Packing	50 Kg HDPE Bag
Freight	Extra
Offer Validity	5 Days
Payment	Advance, L/C, T/T
Insurance	0.0012 * Invoice Value to Your Account

Note: Apart from the above grades, we do manufacture tailor made talc based upon clients' requirement.

Mica Applications:

1. Pearl pigment: Pigment is coated with mica to make pearl pigments. Mica is the only natural substrate that provides a pearlescent effect once it has been coated with TiO_2 or Fe_2O_3.

2. Paper Industry: For making wall paper and coated paper. High aspect ratio mica, with it's clean surface and smooth edges, imparts the highest barrier properties. This property is much appreciated in packaging products as it provides protection from the water or grease associated with the food. As a natural product, it offers an environmentally friendly solution versus the traditional organic binders.

3. Paint Industry: To make good anti corrosive paint, primer, under coat, water based paints exterior coating, chemical resistant coating etc. Used in marine paints and aluminium paints. In the paint industry, ground mica is used as a pigment extender that also facilitates suspension, reduces chalking, prevents shrinking and shearing of the paint film, increases resistance of the paint film to water penetration and weathering, and brightens the tone of colored pigments. Mica also promotes paint adhesion in aqueous and oleo resinous formulations. An application where mica is widely used for its reinforcement properties, preventing cracks in particularly thick films as the drying process induces shrinkage. Thanks to its barrier properties, mica brings high value in external renderings and anti-corrosive paints.

4. Plastic Industry: Used in plastic Industry as a filler an mica improves electrical and thermal resistance and boost in insulation properties. Mica has innumerable uses in many industries like fire extinguishers, oil drilling, construction chemical, building material, lubricants, adhesives, and foundries. The plastics industry used dry-ground mica as an extender and filler, especially in parts for automobiles as lightweight insulation to suppress sound and vibration. Mica is used in plastic automobile fascia and fenders as a reinforcing material, providing improved mechanical properties and increased dimensional stability, stiffness, and strength. Mica-reinforced plastics also have high-heat dimensional stability, reduced warpage, and the best surface properties of any filled plastic composite.

5. Plastic frames: and in the automotive industry. Thanks to its low coefficient of thermal expansion, mica imparts dimensional stability in complex and long shape pieces.

6. Plasterboard & Joint compound: Mica is used primarily as an anti-cracking and reinforcing additive. It provides good rheological properties and allows the smooth application of the joint paste.

7. Decorative: Several niche markets highly appreciate mica for its glittering and aesthetic effects. Mica can be found in various products such as decorative paints, ceramics, decorative concrete, post cards, wall papers

8. Well-drilling Industry: Ground mica is used in the well-drilling industry as an additive to drilling fluids. The coarsely ground mica flakes help prevent the loss of circulation by sealing porous sections of the drill hole. Another conventional use of mica is as a mud constituent for oil well drilling. Its main role is to seal the borehole walls to prevent leakage and pressure loss when the drill bit encounters fractured areas.

9. Rubber Industry: The rubber industry used ground mica as an inert filler and mold release compound in the manufacture of molded rubber products, such as tires and roofing. The platy texture acts as an

antiblocking, anti-sticking agent. As a rubber additive, mica reduces gas permeation and improves resiliency. Due to its platy structure, mica is used either as a demoulding agent during the vulcanization process, or as an anti-sticking powder when several rubber pieces are stacked together.

10. Fibre Cement: Mica is used in high engineered fibre cement to impart dimensional stability either in moisturizing conditions or in passive fire protection.

11. Fire extinguisher: In this application, mica provides anti-caking & flow ability. This is vital, ensuring the dry powder will be properly and quickly blown out of the extinguisher tank.

12. Foundry: Mica is used for coatings in iron casting and to a limited extent in aluminium production casting. It provides several properties both in the coating preparation – e.g. rheology & stability - and once applied on the inner mould surface: mica provides a constant thickness layer on vertical walls, anti-veining effect, and provides a barrier between the sand mould and the molten iron.

13. Welding rods: Mica brings added value both during the rod manufacturing step (ease the extrusion) and the welding itself. During welding, the platy structure acts like a shield protecting the molten steel from ambient air oxidation and moisture.

14. Automotive Industry: Micas in coarse and highly delaminated flakes are widely used in bitumen foils production that is attached onto the inner vehicle frame structures to dampen vibrations. They can be also applied in a spray form in less accessible areas. Thanks to its high thermal resistance and platy structure, mica is added to frictional systems to impart better heat transfer in conjunction with noise reduction in Brake pads & Clutches.

For more information please visit us @ www.vaaidehiminerals.com

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