

Technical Bulletin

Engineered products

Engineered products for protective coatings

Imerys Engineered microcrystalline talc products are high-purity, premium mineral pigments ideal for high-performance industrial coatings. They are designed to give minimum viscosity build and allow for higher loading levels in VOC-compliant and high-solids industrial coatings. They are excellent alternatives to tremolite-containing products.

Engineered talcs impart barrier properties, anti-corrosion performance, film reinforcement, ease-of-dispersion, and anti-settling rheology for industrial maintenance coatings, marine coatings, and general industrial and protective coatings.

Imerys Engineered product line:

Product	Hegman	Particle Size, mean μm	Oil Adsorption
Mistron® 201	2.0	28	18
Mistron® CF5A-M	2.5	20	20
Nicron® 302	3.0	13	22
Nicron® 402	4.0	9.5	25
Nicron® 503	5.0	5.7	33
Mistron® RCS	5.5	3.5	37

Typical properties (all):

Mineralogy	
Microcrystalline Talc, %	>98
Dolomite, %.....	<2
Bulking Value, lbs/gal	23

Engineered talc products deliver the following performance advantages:

Low viscosity build

Microcrystalline talcs are oleophilic and have the ability to associate with typical industrial coating resins such as alkyds, epoxies, amines, and polyols. In doing so, mineral pigments create weak bonds with these resins that result in increased low-shear viscosity. When shear is applied the bonds break quickly, resulting in shear-thinning coating rheology that is ideal for spray applications.

The Engineered Series of microcrystalline talcs have a unique particle size distribution that maintain a high performance level in industrial coatings while giving minimal viscosity build and maintaining anti-settling properties. These products also allow higher loading levels that result in potential cost-saving opportunities.

Superior anti-corrosion performance

Imerys microcrystalline talcs are proven anti-corrosion mineral pigments for demanding applications such as marine coatings, heavy industrial maintenance coatings, general industrial and direct-to-metal paints.

Ease-of-dispersion and lower dust in processing

The Engineered products have low binder demand and disperse easily in typical industrial coatings resins such as epoxies, alkyds, amines, and polyols. They are also less prone to dust generation compared to conventional talc products due to their unique particle size distribution



About Imerys Talc

Imerys Talc is the world's leading talc producer, employing 1,000 people on five continents and supplying around 15 percent of world demand from our mines and processing plants in Australia, Austria, Belgium, Canada, France, Italy, Japan, Spain and the United States.

We are the acknowledged leaders in product quality, supply reliability and technical support – the services that create value for our customers and set us apart from competitors.

With over a hundred years' experience in the extraction and processing of talc, we offer the highest quality talc products on the market today.

About Talc

Talc is a surprisingly versatile, functional mineral which possesses a unique combination of properties. Talc is soft, water repellent, chemically inert and highly platy and has a marked affinity for certain organic chemicals. Our industry experts have harnessed these properties to bring customers improved performance in a wide range of applications such as paper, paints, plastics, rubber, ceramics, agriculture, food, pharmaceuticals, cosmetics and soap.

Meeting today's needs. Securing tomorrow's.

We believe that running a successful business and sustaining quality of life and the environment go hand in hand. From implementing behavior-based safety training to rehabilitating the land, we think it's important that future generations' needs are not compromised by our actions today.

Our fundamental sustainability principles are:

Safety – We promote the health and safety of employees, contractors, customers, neighbors and consumers through active caring.

Partnership – We seek to understand the issues that are important to our neighbors, and to make a lasting contribution to the communities in which we operate.

Environmental protection – We work to minimize our environmental footprint by using natural resources efficiently, preventing pollution, complying with applicable laws and regulations and continually improving our performance.

Accountability – We conduct business in an accountable and transparent manner, relying on external auditing and reporting to understand and reflect our stakeholders' interests.

Product stewardship – We are committed to ensuring that our products are safe for people and the environment, employing best available technology and following best-in-class procedures to ensure that our standards and practices meet or exceed safety requirements everywhere we do business.



We conduct life cycle assessments (LCA) at all our operations to quantify the environmental effects associated with producing our products from the mine to factory gate, and to identify areas for improvement.

Likewise, we compile life cycle inventories (LCI) of the energy consumption, materials used and emissions generated by each of our product ranges. These LCI can be made available to customers and research institutions on request.



For more information, please visit www.imerystalc.com

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