



# PAIN**T**, IN**K** & COAT**INGS**

CALCINED & HYDROUS KAOLINS | CALCIUM CARBONATES | MICA

THE WORLD'S LARGEST  
SUPPLIER OF WHITE  
INDUSTRIAL MINERALS

# QUALITY ASSURED CUSTOMER DRIVEN



## IMERYS KAOLINS OFFER

- > HIGH PURITY
- > PROVEN PERFORMANCE
- > FORMULATION FLEXIBILITY
- > SUPERB VALUE

*We actively work with our customers to develop new and unique solutions to meet the requirements of the most exacting paint formulations.*

## KAOLINS | HYDROUS

Kaolin is a naturally occurring hydrated aluminum silicate crystalline mineral. It is characterized by its lamellar or platy particle shape, fine particle size and chemical inertness. The combination of platy shape and fine particles size results in improved spacing of TiO<sub>2</sub> particles in a paint film and improved opacity.

Product	Brightness	Whiteness	Median Particle Size (µm)	pH	Form	Applications
Hydrite® Flat DS	81.5	90	4.0	4.7	Spray Dried Bead	A coarse particle, acid flocced kaolin clay with controlled particle distribution for use in water-based low sheen and primer coatings. Hydrite Flat D has also found utility in adhesives for rheological control.
Hydrite® 121S	83.5	93.5	1.0	7.0	Spray Dried Bead	A pre-dispersed medium particle size kaolin clay that is well suited for use in low – mid sheen water-based formulations and adhesives.
Hydrite® RSA Hydrite® RS	86	94	0.45	4.7 7.0	Spray Dried Bead	A fine particle, kaolin clay with controlled particle distribution and rheological properties. Available in acid flocced and spray dried form. Hydrite RSA is well suited for use in water-based coatings as well as color concentrate applications.
Hydrite® PXLCS	88.5	95	0.4	4.5	Spray Dried Bead	A fine particle, acid flocced kaolin clay with controlled particle distribution that is well suited for use in water-based coatings where extension characteristics are desired.

# IMERYS KAOLINS

## KAOLINS | DELAMINATED

Product	Brightness	Whiteness	Median Particle Size (µm)	pH	Form	Applications
Kaopaque® 10S	89	95	0.55	7.0	Spray Dried Bead	A pre-dispersed delaminated kaolin clay having a high aspect ratio which leads to enhanced TiO <sub>2</sub> extension, enamel holdout, and stain resistance. Pre-dispersed delaminated kaolin clays are ideally suited for use in water-based coatings and primers.
Imerys® 1201 Slurry	89	95	0.55	7.0	68.5% Solids Slurry	A pre-dispersed delaminated kaolin clay having a high aspect ratio which leads to enhanced TiO <sub>2</sub> extension, enamel holdout, and stain resistance. Pre-dispersed delaminated kaolin clays are ideally suited for use in water-based coatings and primers.

## KAOLINS | CALCINED

Product	Brightness	Whiteness	Median Particle Size (µm)	pH	Form	Applications
NeoGen® 2000	94	97	0.7	5.7	Finely Pulverized	A highly-structured, engineered, fine particle thermally-modified kaolin clay that offers maximum TiO <sub>2</sub> extension, opacity, and tint strength in water or solvent-based coatings.
Polestar® 400	92	97	0.6	5.5	Finely Pulverized	A premium fine particle calcined kaolin clay that offers an excellent balance of opacity, tint strength, and film durability in flat coatings systems.
Glomax® LL	91	96.5	1.5	4.5	Finely Pulverized	A medium particle calcined kaolin clay that has a long-standing history of performance in a wide range of low sheen coating applications. Glomax LL offers the formulator a balance of opacity, tint strength, and sheen control in water and solvent-based coatings systems.
Glomax® JDF	91	96.5	0.6	5.0	Finely Pulverized	A fine particle calcined kaolin with a very closely controlled particle size distribution that was designed for oleoresinous and primer systems where fast grinding and high hiding are desired.

# ADDING VALUE THROUGH MINERALS



## IMERYS CALCIUM CARBONATES OFFER

- HIGH PURITY
- HIGH WHITENESS
- PROVEN PERFORMANCE
- FORMULATION FLEXIBILITY
- SUPERB VALUE

*All our products are backed up by a high standard of technical service, product development and research from a global team of highly experienced scientists and industry specialists.*

## CALCIUM CARBONATES | WET GROUND PRODUCTS

Manufactured from high purity marble, these grades are ground and further refined through a flotation process to remove slight impurities in the ore body. The benefits of this production process are products that have high brightness, whiteness, tight particle size control, and consistency in a wide variety of coatings formulations.

Product	Pre-Dispersed	Brightness	Median Particle Size (µm)	Applications
Camel-Cal™	Yes	96	0.7	Water-based coatings for optimized gloss, sheen and resin extension.
Supermite®	No	96	1.1	Water-based coatings for optimized gloss, sheen and resin extension.
Camel-Fine™	Yes	96	1.8	Water-based coatings where minimal reduction in gloss and sheen are desired.
Camel-Wite® Atomite®	No	96	3.0	Use in a diverse range of gloss and sheen finishes for water and solvent-based coatings and primers.
Atomite® Star	No	96	3.0	Preferred for solvent-based coatings that require higher Hegman dispersion properties.
Micro-White® 25	Yes	96	3.0	A pre-dispersed material for water-based formulations where Atomite-like properties are desired. This grade is modified to improve powder flow in bulk handling systems.
SnowFlake® P.E.	No	94	5.5	A fine grind material for use in mid to low sheen solvent and water-based systems designed for highly loaded systems.
Duramite®	No	92	12.0	A premium material for flattening and extension properties where a cleaner top cut is required.

# IMERYS CALCIUM CARBONATES

## CALCIUM CARBONATES | DRY GROUND PRODUCTS

Manufactured from high purity marble, these grades are produced and classified to tight standards of top cut mesh retention, median particle size and brightness.

Product	Brightness	Median Particle Size (µm)	Applications
Gama-Sperse® 80	94	2.5	A fine ground product for use in mid-sheen water and solvent-based systems.
Gamaco®	91-95**	3.0	A diverse range of gloss and sheen finishes for water and solvent-based coatings and primers.
Calwhite™	90-94**	6.0	A general utility material for use in low sheen water and solvent-based coatings and primers.
Drikalite®	90-93**	8.0	A general utility material for use in low sheen water and solvent-based formulations. Very well suited for traffic marking applications.
#10 White™	87-93**	12.0	A coarse particle for flattening in water and solvent-based architectural formulations.
Gama-Sperse® 255	92	12.0	A coarse material with a very clean top cut where flattening and smoothness of finish are desired. An excellent choice for powder coatings applications.
Micro-White® 100	88-92**	~20.0	A coarse material for use in applications where very low oil absorption is desired. An excellent choice for use in thermoplastic traffic marking applications.
CP Filler®	N/A	~20.0	A coarse particle for applications that do not require the tight color control of Micro-White 100.
Marbledust®	89-91**	~25.0	A coarse particle for applications that require low oil absorption where some surface roughness is desired. An equally good choice for thermoplastic traffic applications.

\*\* Value is dependent on source of material.



# A NETWORK OF PLANTS ACROSS SIX CONTINENTS



## CALCIUM CARBONATES | SCREEN GRADE PRODUCTS

Manufactured from high purity marble, these grades are classified to specific screen sizes resulting in high whiteness materials of varying particle size ranges for textured coatings and stuccos.

Product	Top Sieve – % Retained	Bottom Sieve – % Passing	Bulk Density (loose) (lb/ft <sup>3</sup> )	Bulk Density (packed) (lb/ft <sup>3</sup> )
40-200™	40 – 1%	200 – 15%	90	115
30-50 White™	30 – 1%	50 – 15%	90	105
XO White™	16 – 1%	40 – 10%	90	105
Z White™	10 – 1%	20 – 7%	90	105
OZ White™	6 – 1%	14 – 5%	90	105

## CALCIUM CARBONATES | TREATED PRODUCTS

Manufactured from high purity marble and processed with a hydrophobic surface treatment, these grades offer the benefits of wet ground processing as well as low moisture pick-up and easy dispersion in non-aqueous systems.

Product	Brightness	Median Particle Size (µm)	Applications
Supercoat®	96	1.1	An ultra fine particle for higher gloss finishes in solvent and 100% solids systems.
ImerSeal™ 75	96	1.1	An ultra fine particle produced utilizing proprietary technology that reduces moisture for improved dispersion efficiency and moisture pick-up properties. A superior choice for urethane, epoxy, and plastisol applications.
Camel-Fine™ ST	96	1.8	A fine particle for use in flat to gloss solvent and 100% solids systems.
Kotamite®	96	3.0	A fine particle for use in flat to gloss solvent and 100% solids systems.
Camel-Wite® ST	96	3.0	A fine particle for use in flat to gloss solvent and 100% solids systems.
Gama-Sperse® CS-11	93	3.0	A fine particle for use in flat to gloss solvent and 100% solids systems.

# NEW PRODUCTS: IMERYS XCS™

## NEW IN 2010

### CALCIUM CARBONATES | IMERYS XCS™ PRODUCTS

The Imerys XCS™ line of carbonates is a new generation of calcium carbonate which has been specifically designed to meet the environmentally-friendly needs of modern paint and coatings systems requiring very low levels of crystalline silica.

Product	Pre-Dispersed	Brightness	Median Particle Size (µm)	Crystalline Silica %	Applications
XCS™-Carb 30	No	96	3.0	<0.1%	Formulations requiring attention to crystalline silica levels. It is recommended for a broad range of product applications requiring a fine particle size such as: medium gloss latex and solvent based paints.
XCS™-Carb 15	Yes	96	1.8	<0.1%	Formulations requiring attention to crystalline silica levels. It is recommended wherever ultra fine particle sized products are required, such as: Medium-to-high gloss, water based coatings, coatings for board and ceiling tile and powder coatings.
XCS™-Carb 10	No	95	1.1	<0.1%	Formulations requiring attention to crystalline silica levels. It is recommended for applications of high gloss paints and coatings, powder coatings and Inks.
XCS™-Carb 07	Yes	95	0.7	<0.1%	Formulations requiring attention to crystalline silica levels. It is recommended for applications of high gloss paints and coatings where the formulator desires to provide TiO <sub>2</sub> extension. It can be used in latex paints to provide sag resistance, drip and thixotropy control. It can also be used in board coatings and Inks.

# SERVING CUSTOMERS WORLDWIDE



## MICA

Imerys mica provides several value added attributes to the paint and coatings, and adhesive, caulks and sealants markets. The true value of mica is in its unique physical properties. Its highly delaminated sheets are platy, flexible, elastic, transparent to opaque, resilient, reflective, refractive, dielectric, chemically inert, insulating, lightweight, and hydrophilic.

*Imerys Performance Minerals products are used extensively in the Paint and Coatings industry throughout the world. Our products provide the coatings formulator with a unique portfolio from which to select the extenders and additives required to obtain the desired balance of properties and coating performance.*

## MICA | PHLOGOPITE PRODUCTS

Imerys Phlogopite Micas are excellent functional fillers for coatings, joint compounds, plastics, rubber, sound deadening, foundry coatings, along with many other technical applications.

Product	Mean Diameter	Aspect Ratio*	Mica Type	Applications
40-S	420.0	High	Flake	<b>Sound-deadening:</b> large, thin flakes create barriers to sound vibration transmission and offer weight reduction over other mineral fillers. <b>Fire Resistant Coating:</b> bound moisture content and heat resistance improve flame resistance and large flake size builds viscosity allowing for greater film thickness.
60-S	323.0	High	Flake	<b>Paints &amp; Coatings:</b> Provides improved barrier properties (MVT), heat resistance, promotes adhesion, reduces cracking and checking.
200 HK	57.0	65:1	Dry Ground	<b>Paints &amp; Coatings (Marine):</b> provides improved barrier properties (MVT), promotes adhesion, reduces salt spray corrosion. <b>Sound-deadening:</b> large, thin flakes create barriers to sound vibration transmission and offer weight reduction over other mineral fillers.
325-S	37.0	75:1	Micronized	<b>Drywall Joint Compound:</b> controls shrinkage and reduces cracking. <b>Foundry Coatings:</b> controls permeability, improves surface quality and is heat resistant. <b>Paints &amp; Coatings:</b> improved barrier properties.
325 HK	29.0	80:1	Micronized	<b>Paints &amp; Coatings (Marine):</b> provides improved barrier properties (MVT), promotes adhesion, reduces salt spray corrosion. <b>Sound-deadening:</b> large, thin flakes create barriers to sound vibration transmission and offer weight reduction over other mineral fillers.

\* Typical aspect ratio measured using the Jennings-Parlow method.



# NEW PRODUCTS: IMERYS MICA

## IMERYS MICA OFFERS

- BARRIER EFFECTS
- CRACKING/CRAZING RESISTANCE
- HIGH SHEAR AND COMPRESSIVE STRENGTH
- IMPROVED ADHESION
- LOWERED MVT
- IMPROVED CORROSION RESISTANCE
- INCREASED VISCOSITY IN COATINGS
- NON-FLAMMABLE
- LOW THERMAL CONDUCTIVITY
- THERMAL STABILITY
- CHEMICAL STABILITY & INERT IN WATER, ACID, OIL
- UV RESISTANCE
- LOW COEFFICIENT OF FRICTION

## MICA | MUSCOVITE PRODUCTS

Imerys Muscovite micas are excellent functional fillers for coatings, joint compounds, plastics, rubber, sound deadening, foundry coatings, along with many other technical applications.

Product	Mean Diameter	Aspect Ratio*	Mica Type	Applications
L-140	60.0	95	Flake	<b>Sound-deadening:</b> large, thin flakes create barriers to sound vibration transmission and offer weight reduction over other mineral fillers. <b>Paints &amp; Coatings:</b> provides improved barrier properties (MVT), promotes adhesion, reduces cracking and checking.
4K	54.0	50	Dry Ground	<b>Drywall Joint Compound:</b> controls shrinkage and reduces cracking. <b>Foundry Coatings:</b> controls permeability, improves surface quality and is heat resistant. <b>Paints &amp; Coatings:</b> improved barrier properties.
WG 325	33.0	90	Wet Ground	<b>Paints &amp; Coatings:</b> provides improved barrier properties (MVT), promotes adhesion, reduces cracking and checking. <b>Sealants &amp; Adhesives:</b> reduces shrinkage and cracking.
C-500	30.0	70	Micronized	<b>Paints &amp; Coatings:</b> provides improved barrier properties (MVT), promotes adhesion, reduces cracking and checking. <b>Sealants &amp; Adhesives:</b> reduces shrinkage and cracking.
C-4000	17.0	45	Micronized	<b>Paints &amp; Coatings:</b> provides improved barrier properties (MVT), heat resistance, promotes adhesion, reduces cracking and checking.

\* Typical aspect ratio measured using the Jennings-Parslow method.

# APPLICATIONS OVERVIEW



*The diverse range of structures, chemical and thermal stability, whiteness and relatively low specific gravity make these minerals useful additions in a number of applications.*

## MICAS

		MICA APPLICATIONS FOR PAINT & COATINGS																						
		Block Fillers	Cementitious	High Temperature	Industrial Primers	Decorative	Exterior	Marine	Roof	Stucco	Texture	Wood Stains	Trade Sales	Interior	Forest	Traffic	Metal	Automotive	Solar Energy	Pool	Foundry	Refractory	Paper	
MUSCOVITE FROM KINGS MOUNTAIN MICA	WET GROUND	WG 325	●	●	●			●	●	●	●		●	●	●		●	●	●	●	●	●	●	
		WG 160																			●		●	
	MICRO	C-4000			●	●						●						●	●					
		C-3000	●	●	●	●						●						●	●					
		C-1000	●	●								●						●	●					
		C-500	●	●								●	●	●	●	●	●	●	●		●	●	●	●
	FLAKE	L-120					●																	
		L-125					●																	
	DRY GROUND	100-K	●	●							●	●											●	
		1-K	●	●							●	●											●	
4-K		●	●							●	●					●				●	●	●		
PHILOGOPITE FROM SUZORITE MICA	HI ASPECT RATIO	80-SF	●																					
		60-HK																					●	
		200-HK																					●	
		325-HK			●													●					●	●
	FLAKE & POWDER	20-S									●													
40-S						●				●														
60-S			●			●				●														
200-S																						●		
325-S		●	●	●																		●	●	

● Recommended

For specifications see product data sheets

## KAOLINS | CALCIUM CARBONATES

		WATER BASED ARCHITECTURAL PAINTS								SOLVENT BASED ARCHITECTURAL PAINTS					PROTECTIVE & OEM COATINGS					INKS					
		Gloss	Semi-gloss	Interior Matt	Exterior Semi-gloss	Exterior Matt – smooth	Exterior Matt – textured	Textured Coatings	Exterior Stuccos	Primers	Gloss	Semi-gloss & Eggshell	Matt	Undercoats	Primers	Epoxy	Metal Primers	Furniture Lacquers	Appliance Finishes	Coil Coatings	Powder Coatings	Traffic Paint	Thermoplastic Striping	Printing Inks	
KAOLIN	HYDROUS	Hydrite® Flat DS		●		●	●	●													●				
		Hydrite® 121S					●	●		●											●				
		Hydrite® RSA		●							●														●
		Hydrite® RS		●							●														●
		Hydrite® PXN LCS		●	●	●	●	●	●		●						●		●						●
	DELAMINATED	Kaopaque® 10S		●	●		●	●	●	●															●
CALCINED	PoleStar® 400		●	●		●	●	●	●		●	●				●		●	●	●	●			●	
	Glomax™ LL			●		●	●	●	●		●	●	●						●	●	●	●	●	●	
	Glomax™ JDF								●	●	●		●			●	●	●	●	●	●	●	●	●	
STRUCTURED PIGMENTS	NeoGen® 2000		●	●		●	●	●	●		●	●				●	●	●	●	●			●		
CALCIUM CARBONATE	GROUND	Camel-Cal™	●	●		●					●	●					●	●	●	●	●			●	
		Supermite®	●	●		●					●	●					●	●	●	●	●	●			●
		Camel-Fine™	●	●		●				●	●	●					●	●	●	●	●	●			●
		Gama-Sperse® 80	●	●		●				●	●	●	●			●	●	●	●	●	●	●	●		●
		Gamaco®	●	●	●	●	●	●		●	●	●	●	●		●	●	●	●	●	●	●	●	●	●
		Camel-Wite®	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		Atomite®	●	●	●	●	●	●		●	●	●	●	●		●	●	●	●	●	●	●	●	●	●
		Atomite®Star	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		Micro-White® 25	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		Calwhite®		●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●
		Snowflake® PE			●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●
		Drikalite®		●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●
		Gama-Sperse® 255			●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●
		No. 10 White™			●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●
		Duramite®			●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●
		CP Filler®																					●	●	●
		Micro-White® 100			●	●	●	●	●	●						●			●				●	●	●
		CC-103®																					●	●	●
		Marbledust®																					●	●	●
		50-200™																						●	●
		-50™																					●	●	●
		40-200™																						●	●
		CM™ 40-200																						●	●
	30-50 White™																						●	●	
	XO White™/Z White™ /OZ White™								●	●													●	●	
	NEW IN 2010	XCS™-Carb 07	●	●		●						●	●					●	●	●	●			●	
		XCS™-Carb 10	●	●		●					●	●						●	●	●	●			●	
		XCS™-Carb 15	●	●	●	●				●	●	●		●				●	●	●	●	●		●	
		XCS™-Carb 30	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
TREATED GROUND	Camel-Cal™ ST							●		●										●			●		
	Supercoat®							●		●										●			●		
	ImerSeal™ 75							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
	Camel-Fine™ ST							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
	Kotamite®							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
	Camel-Wite® ST							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
Gama-Sperse® CS-11							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			

For specifications see product data sheets

● Recommended

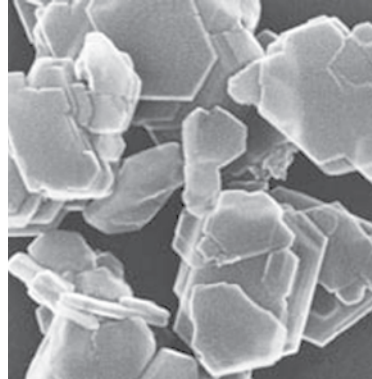
● Can Be Used

# THE LARGEST PRODUCER OF WHITE MINERALS

**CUSTOMER-DRIVEN** IMERYS WORKS ACTIVELY WITH CUSTOMERS TO DEVELOP NEW AND INNOVATIVE SOLUTIONS TO SOLVE THEIR TECHNICAL CHALLENGES. AS A GLOBAL LEADER IN WHITE MINERALS, IMERYS BRINGS ITS UNIQUE KNOWLEDGE, TECHNOLOGY AND UNRIVALED DEPTH OF APPLICATION EXPERTISE TO IMPROVE THE VALUE OF OUR CUSTOMERS' PRODUCTS.

**NEW PRODUCT DEVELOPMENT** IMERYS IS CONTINUOUSLY CREATING NEW AND BETTER WAYS TO TRANSFORM MINERAL RESOURCES INTO HIGH-PERFORMANCE, SOLUTION-DRIVEN PRODUCTS.

**ENVIRONMENTAL POLICY** IMERYS IS COMMITTED TO BEING A GOOD NEIGHBOR TO OUR ENVIRONMENT AND WE TAKE THIS RESPONSIBILITY VERY SERIOUSLY. WE HAVE ADOPTED THE PRINCIPLES OF SUSTAINABLE DEVELOPMENT, WHICH INCLUDES EXTENSIVE TRAINING PROGRAMS AND CONSIDERABLE INVESTMENT IN ENVIRONMENTAL PERFORMANCE IMPROVEMENT.



*Left: SEM of Kaolin showing shape.*



*Right: SEM of Mica, demonstrating the large, platy characteristics that improves the performance of paints and coatings.*

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As Green As  
White Can Be™