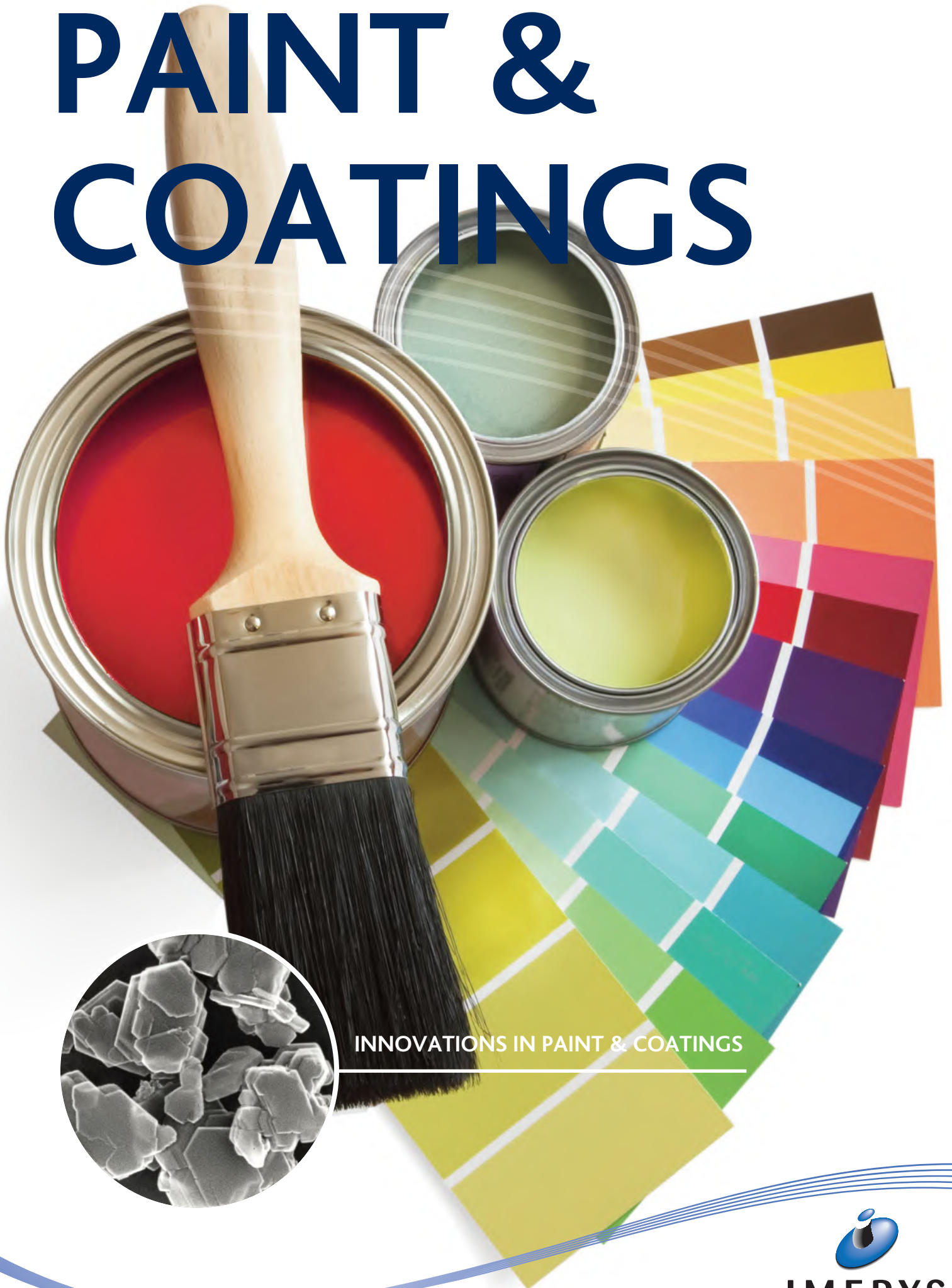


# PAIN T & COATINGS



INNOVATIONS IN PAINT & COATINGS



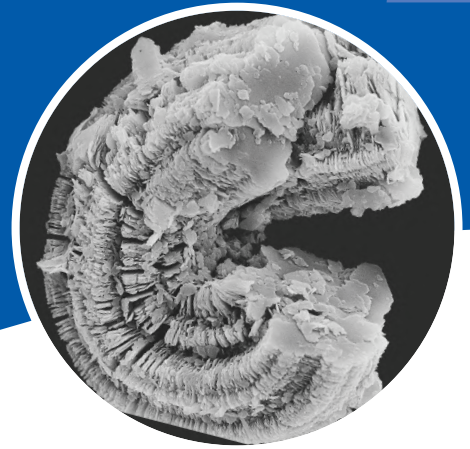
IMERYS

# OPACIFYING EXTENDERS

# 2

Never has titanium dioxide extension been more important in decorative paints. Opacifying extenders from IMERYS can reduce a paint manufacturer's total titanium dioxide requirement, while at the same time making savings in the raw material cost per litre of paint.

IMERYS opacifying extenders allow the replacement of up to 15% titanium dioxide in a paint without any loss of opacity or other key properties.



		WATER-BASED DECORATIVE					SOLVENT-BASED DECORATIVE				INDUSTRIAL COATINGS				INK	TYPICAL PROPERTIES							
		Gloss	Semi-gloss, silk, satin	Matt - Interior	Matt - Exterior	Primers	Gloss	Semi-gloss, silk, satin	Matt	Primers	Primers for wood/metal - water	Primers for wood/metal - solvent	Finishes for wood/metal - water	Finishes for wood/metal - solvent	Coil coatings	Road marking paints	Printing Inks	Brightness (ISO) R457	% + 10 microns	% - 2 microns	Mean Particle Size* (d <sub>50</sub> , µm)	Oil Absorption (g oil/100g)	Hegmann Value, microns
HYDROUS KAOLIN	OptiGloss™	●	●	●								●						89	<0.1	>99	0.15	48	-
	ImerSilk™		●	●								●						87	0.1	93	0.4	42	-
	Supreme™		●	●	●								●				●	87	0.1	93	0.4	42	-
	Speswhite™		●	●	●	●					●		●				●	85	0.3	80	0.7	42	-
	Polwhite™ B			●	●	●					●					●		82	6	55	1.8	38	-
	Polwhite™ E			●	●	●				●					●		78	12	35	3.5	33	-	
SUPER DISPERSIBLE	OptiGloss™ XD	●	●				●	●				●	●	●				89	<0.1	>99	0.2	40	<20
	Polsperse™ 10		●	●	●		●	●	●	●	●	●	●	●			●	87	0.1	93	0.4	42	<25
	Polsperse™ 20		●	●	●	●	●	●	●	●	●	●	●	●			●	85	0.3	80	0.7	42	<25
	Polsperse™ 50			●	●	●		●	●	●	●	●	●		●			82	6	55	1.8	38	<30
FCC CALCINED	PoleStar™ 200P			●	●	●			●	●						●		90	12	50	2.0	50	-
	PoleStar™ 400		●	●	●		●	●										92	1	90	0.6	80	-
FCC	Opacilite™		●	●	●	●	●	●	●	●	●							87	5	56	1.6	74	<35
DE	CelTiX™			●	●	●			●	●					●			80	3	56	1.7†	100	-

## KEY APPLICATIONS

- The **OptiGloss™** products are new hydrous kaolin extenders for high gloss paints, providing cost savings through resin and titanium dioxide extension while maintaining high gloss levels.
- For semi-gloss, silk and satin paints, **ImerSilk™** is characterised by high opacity with minimal gloss reduction, giving it an ideal property profile.
- **Supreme™** hydrous kaolin gives efficient titanium dioxide spacing with strong thixotropic thickening for high quality matt paints.
- The **Polsperse™** products are pulverised hydrous kaolins for use specifically in solvent-based systems.
- The closed voids of **Opacilite™** flash calcined kaolin contribute excellent opacity through dry hiding in high quality matt paints, and can be used in combination with a hydrous kaolin for maximum benefit.

### Key

- Recommended
- Can be used
- \* Sedigraph
- † Laser diffraction d<sub>50</sub> 11.0 µm
- FCC Flux Calcined Clay
- DE Diatomaceous Earth

# MATTING AGENTS

Diatomaceous earth has long been used as a matting agent in paints. Being a natural mineral product, every deposit has its own characteristics and these result in different coating properties being obtained.

IMERYS continues to search for deposits that bring an advantageous combination of benefits for the coating formulator. Utilising sources in Spain, USA, Mexico and South America coupled with our in-house process expertise, IMERYS matting agents are the industry leaders.

**Key**

- Recommended
- Can be used
- \* ASTM D281-Rub Out
- S-B Solvent Based
- DECO Decorative

		WATER-BASED DECORATIVE				S-B DECO	INDUSTRIAL COATINGS			TYPICAL PROPERTIES					
		Semi-gloss, eggshell, soft sheen	Matt - interior	Matt - Exterior	Plasters	Semi-gloss, silk, satin	Matt	Primers for wood/metal	Finishes for wood/metal	UV cured furniture coatings	Coil coatings	Road marking paints	Brightness (Green Filter)	Mean Particle Size (d <sub>50</sub> , μm)	Oil absorption* (g oil/100g)
ALUMINO SILICATE	OpTiMat™ 2040	●	●	●	●	●							84	20	190
	OpTiMat™ 2550	●	●	●	●	●							82	25	205
	OpTiMat™ 3060	●	●	●	●	●							82	30	220
	ImerCure™ X10								●				87	0.4	42
NATURAL DIATOMITE	EcoFlat™ 0309	●	●	●		●	●	●	●				90	3	80
	EcoFlat™ 1880		●	●			●	●	●				85	18	70
	Diafil® 590	●	●	●		●	●	●	●				85	4	120
	Diafil® 570		●	●			●	●	●				85	9	120
	Diafil® 530		●	●			●	●	●				83	11	120
	Diafil® 525		●	●			●	●	●			●	83	11	120
	Celite® 266		●	●			●					●	80	12	120
FLUX CALCINED DIATOMITE	Celite® 499		●	●			●						95	14	135
	Celite® 281		●	●	●		●					●	95	17	130
	Celite® 388		●	●	●		●					●	95	19	130
	Celite® 110		●	●			●					●	95	21	135

## KEY APPLICATIONS

- The **OpTiMat™** range of high efficiency matting agents achieve very low sheen, deep matt decorative finishes while maintaining a smooth paint film.
- As well as giving effective matting, **EcoFlat™ 1880** significantly improves the scrub resistance of matt wall paints formulated in the 60-80% PVC range.
- **EcoFlat™ 0309** can reduce formulation cost in industrial finishes, particularly coil coatings, when used as a partial replacement for synthetic silica matting agents.
- **ImerCure™ X10** provides effective matting for UV-cured wood furniture coatings.

# SPECIALITY MINERALS



With access to long term resources in Europe and both North and South America, IMERYS' portfolio also includes more specialised products for a wide variety of end uses. These range from fine particle size, high performance micas for decorative and industrial use, through to larger particle sized products for plasters and speciality coatings giving textured finishes and novel optical effects.

		DECORATIVE COATINGS						INDUSTRIAL COATINGS						TYPICAL PROPERTIES							
		Semi-gloss & Eggshell	Matt - Exterior	Matt - Exterior - Stucco	Matt - Interior	Decorative Effects	Solvent Base	Metal Primers	Marine	Anti-Corrosion	Heat Resistant	Intumescent	Wood	Floor	Powder Coatings	Traffic Marking Paints	Packaging Coatings	Brightness ISO	Mean Particle Size (d <sub>50</sub> , µm)	Oil Absorption (g oil/100g)	Bulk Density
MICA	MU M2/1	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	75	5.0	65	300
	MKT	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	77	4.5	53	300
	WG 333		●				●	●	●			●				●		69	40	46	230
	MU 101		●	●	●		●	●		●	●	●	●	●	●	●	●	68	41	69	440
	MU 85F		●	●	●		●	●		●	●	●	●	●	●	●	●	67	45	50	440
	MU 247		●	●	●		●	●		●	●	●	●		●	●	●	65	64	47	460
	MU 280		●	●	●		●			●	●	●	●			●		63	72	45	480
	MU 814								●		●	●	●		●			43	60	99	410
	MU 450					●												55	-	556	650
	MU 454					●												54	150	55	700
PLATY KAOLIN	Barrisurf™ LX							●	●							●	88	-	54	-	
	Barrisurf™ HX							●	●							●	86	-	51	-	
PERLITE	Europertl® B-6		●			●												-	450	-	45
	Harborlite® 30x20S		●			●												-	330	-	55

- Key
- Recommended
  - Can be used

## KEY APPLICATIONS

- In decorative coatings **micas** are used primarily for mudcrack resistance - in interior paints formulated close to CPVC, and in exterior paints and plasters where they also have excellent durability.
- In industrial coatings **micas** are used extensively in heavy duty protective coatings where their platy structure gives benefits as a barrier pigment for improved corrosion protection.
- Expanded perlites **Europertl® B-6** and **Harborlite® 30x20S** provide the large particles required for textured decorative coatings.



## IMERYS

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