

# IMERYS Products for ETP Applications



TYPICAL PROPERTIES

	CALCIUM CARBONATE							DOLOMITE		CALCINED KAOLIN			PERLITE	MICA
	Infusion 1SL	Infusion 2SL	ImerCarb™ 10G	Carbtial™ 115	Carbital™ 120	Carbital™ 130	Carbital™ 140	D110S	DRB 20	PoleStar™ 200R	Opacilite™	Polarite™ 102A	Europert® 55	Mica Mu 101
Brightness (ISO R457)	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Yellowness (Max.)	90	89	93	94.2	94	93.5	92.5	65	87.5	88.5	87	89	70.8	74.3
d <sub>50</sub> (µm)	2.0	2.5	1.3	1.1	1.1	1.1	1.1	6	3	4.9	3.7	5.0	4.9	4.5
+ 10 µm (Mass % max.)	1.4	2.0	8.0	2.8	3.5	5.0	10.0	150	5	-	-	-	22.9*	16.4
- 2 µm (Mass %)	2.0	2.0	40	9.0	25	30	50	95	10	10	5.0	10	82.7*	68.0
Oil Absorption (g/100g)	70	50	20	40	32	30	15	0.5	15	44	55	45	2.2*	7.8
Surface Area (BET; m <sup>2</sup> /g)	-	-	13	18	16	16	17	22	17	50	74	48	135	82
Moisture (%)	5.0	3.5	1.0	3.3	3.0	2.0	1.4	0.2	1.7	8.5	11	8.5	1.7	3.3
Aerated powder density (kg/m <sup>3</sup> )	-	-	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.5	0.5	0.3	0.3
Tapped powder density (kg/m <sup>3</sup> )	700	800	-	730	660	710	780	1200	900	340	260	360	160	390
Production Location	1300	1400	1400	1110	1220	1250	1480	1800	1500	600	480	610	350	760
	BE	BE	TU	IT	IT	IT	IT	FR	FR	UK	UK	UK	ES	FR

**Key:**

- Recommended
- Can be used
- BE Belgium
- ES Spain
- FR France
- IT Italy
- TU Tunisia
- UK United Kingdom

\* Particle size measured by Malvern light scattering technique

The data quoted are determined by the use of IMERYS Minerals Ltd Standard Test Methods, copies of which will be supplied on request. Every precaution is taken to ensure the products conform to our published data, but since the products are based on naturally occurring raw materials, we reserve the right to change these data should it become necessary. Sales are in accordance with our 'Conditions of Sale', copies of which will be supplied on request.



ETP



# Products for Engineering Thermoplastics

# ETP

[www.imerys-perfmins.com](http://www.imerys-perfmins.com)

PFME/P004 - First Edition - 09/10

## Calcium Carbonate

Imerys supplies a wide range of ground calcium carbonate grades based on chalk, limestone and marble deposits with a range of particle sizes and powder brightness's depending on the source. These materials find use in a range of different applications in engineering thermoplastics where they can be used simply for cost reduction or as functional filler improving the mechanical, rheological and optical properties of the polymer. Some fine products are surface treated to improve dispersion and enhance the end performance. The coating also makes these fine products less susceptible to moisture pick up during storage and use.

## Calcined Kaolin

Calcined kaolin is an anhydrous aluminium silicate produced by heating natural calcined clay resulting and in a harder and lower aspect ratio particle compared to the natural kaolin. Calcined kaolin can be used in engineering thermoplastic applications either in this form or as a silane surface treated grade such as **Polarite™ 102A** which is capable of chemically coupling with the polymer resulting in improved dispersion and enhanced mechanical properties such as flexural strength and impact resistance.

## Mica

Imerys muscovite mica is derived from deposits in France, materials based on phlogopite are available from deposits in the USA, Imerys can supply both muscovite and phlogopite products with its mines in Europe, USA and Canada it is well placed to supply global demand. Mica is a platy mineral with naturally high aspect ratios and as such find use in applications where a high flexural stiffness is required. Due to their platy nature a mica will also impart a high degree of dimensional stability to moulded parts and will reduce warpage. Micas can also enhance aesthetic properties of polymers due to the pearlescent effect which can be achieved.

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