

Product Data Sheet - Solid Aluminum Oxide Spherical Micro-filler

Product Description

Product is a grey, silicate based ceramic functional filler. Product is a solid spherical shape and is characterized by an extremely high compressive strength and is available in various fractions.

Features and Benefits

- higher filler content due to the spherical form
- improving flow properties
- improved compressive strength
- increased surface hardness
- improved shrinking behavior
- higher packing density
- increased freeze / thaw stability
- improved scratch and abrasion resistance in coatings
- possible replacement for barium sulphate in primer coatings

Application Advice

Due to the pozzolanic activity of product high strength cement bonded systems can be realized. Product can be used as curing agent for silicate binders.

In coatings product provides an economical alternative to barium sulphate as filler. Due to the low oil absorption, higher filler loads can be achieved, while abrasion and scratch resistance are improved.

Technical Data and Types

Physical Properties	Xtra Small	Small	Medium	Xtra Large
Loss on ignition (wt %)	2.5 +/- 0.5	2.5 +/- 0.5	2.5 +/- 0.5	2.5 +/- 0.5
Effect Density (kg/l)	2.51	2.48	2.40	2.38
Bulk Density loose (kg/l)	0.78	0.80	0.87	0.97
Bulk Density tapped (kg/l)	0.92	0.95	1.18	1.25
Specific Surface (cm ² /gm)	6800	5400	4860	4030
Temperature Resistance (°C)	up to 1000	up to 1000	up to 1000	up to 1000
Particle Size (μ)				
d ₅₀	3.5	4.4	6.5	9.7
d ₉₀	9.5	11.4	28.7	58.3

Typical Chemical Composition (wt.%)

SiO ₂	65.2
Al ₂ O ₃	18.7
CaO	6.4
Fe ₂ O ₃	2.9
K ₂ O	2.2
TiO ₂	1.2
P ₂ O ₅	1.2
Other	<1

Typical values, not intended for specification purposes (does not include any assurance of specific properties). The data sheet is intended as initial information only.