

AEROSIL® R 202

Hydrophobic fumed silica

Characteristic physico-chemical data

Properties and test methods	Unit	Value
Specific surface area (BET)	m ² /g	80 - 120
pH value in 4% dispersion		4.0 - 6.0
Loss on drying* 2 hours at 105 °C	%	≤ 0.5
C content	%	3.5 - 5.0
Tamped density* ISO 787-11, modified	g/l	approx. 60
SiO ₂ content based on ignited material	%	≥ 99.8
* ex plant The data represents typical values (no product specification)		

Registrations (substance or product components)

AEROSIL® R 202

CAS-No.	67762-90-7
REACH (Europe)	registered
TSCA (USA) DSL (Canada)	registered
ENCS (Japan) IECSC (China) KECI (Korea) CSNN (Taiwan) PICCS (Philippines)	registered
AICS (Australia) NZIoC (New Zealand)	registered

AEROSIL® R 202 is a fumed silica surface-treated with polydimethylsiloxane.

Applications and properties

Properties

- The silicone oil treatment guarantees the marked hydrophobia of the product
- Highly efficient effect in the thickening and thixotropy of complex polar liquids, such as those based on epoxy, polyurethane, or vinylester resins
- Improves the water resistance of moisture-sensitive formulations, such as cosmetic preparations
- Improvement of the anti-settling behavior of pigments and anti-sagging behavior in 2-C epoxy coatings.
- With silicone oil treatment, AEROSIL® R 202 offers a tailor-made chemical surface treatment.
- Due to its excellent electrical insulating ability and low water absorption, this hydrophobized, small-particle silica easily acquires and conserves electrical charge. It is therefore typically used as a surface additive for toner particles in order to increase charge and improve flowability.
- The high hydrophobicity of PDMS-treated, small particle AEROSIL® grades makes them particularly effective for achieving a high tribo-charge.
- At the same time, PDMS-treated, small particle AEROSIL® grades maintain good flowability.
- The slightly oily effect of the PDMS treatment provides additional benefits in some printing processes.

Applications

- Thickening and thixotropy control of adhesives and sealants for fiberoptic cables
- Thickening and thixotropy control of epoxy and vinylester resins and gelcoats
- Thickening and thixotropy control of cable gels, lubricants, and cosmetic formulations
- Booster silica for defoamer formulations
- Anti-sedimentation aid for fillers, such as chalk or quartz powder
- Additive for formulation of anti-corrosion systems
- Improves flowability of powders
- Enables achieving of a high tribo-charge

Safety and handling

A safety data sheet will be provided with your first delivery and with subsequent revisions. Additionally, the Product Safety Department of Evonik Resource Efficiency GmbH can be contacted via mail at sds-hu@evonik.com for specific questions. We recommend to reach the safety data sheet carefully prior to use of the product.

Packaging and storage

AEROSIL® R 202 is supplied in multiple layer 10 kg bags. We recommend to store the product in closed containers under dry conditions and to protect the material from volatile substances. AEROSIL® R 202 should be used within 2 years after production.

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