

AEROXIDE® TiO₂ P 25

Hydrophilic fumed titanium dioxide

Characteristic physico-chemical data

Properties and test methods	Unit	Value
Specific surface area (BET)	m ² /g	35 - 65
pH value in 4% dispersion		3.5 - 4.5
Loss on drying* 2 hours at 105 °C	%	≤ 1.5
Tamped density*	g/l	100 - 180
Titanium dioxide based on ignited material	%	≥ 99.50
Al ₂ O ₃ content based on ignited material	%	≤ 0.300
SiO ₂ content based on ignited material	%	≤ 0.200
Fe ₂ O ₃ content based on ignited material	%	≤ 0.010
HCl content based on ignited material	%	≤ 0.300
Sieve residue (by Mocker, 45µm)	%	≤ 0.050
* ex plant The data represents typical values (no product specification)		

Registrations (substance or product components)

AEROXIDE® TiO₂ P 25

CAS-No.	13463-67-7
REACH (Europe)	registered
TSCA (USA) DSL (Canada)	registered
ENCS (Japan) IECSC (China) KECI (Korea)	registered
AICS (Australia)	registered

AEROXIDE® TiO₂ P 25 is a fine-particulate, pure titanium dioxide (TiO₂) with high specific surface area and marked aggregate and agglomerate structure. Because of its high purity, high specific surface area, and unique combination of anatase and rutile crystal structure, the product is suitable for many catalytic and photocatalytic applications. Its structure also makes it suitable for use as an effective UV filter.

Applications and properties

Properties

- High specific surface area and high purity
- Crystalline TiO₂ with predominantly anatase structure
- Very good thermal and chemical stability
- Outstanding catalytic and photocatalytic efficiency
- Photoactive under UV-B radiation
- Heat-stabilizing effect in silicone elastomers through the influence of titanium dioxide on redox processes
-

Applications

- Raw material for catalyst substrates with high thermal and hydrothermal stability
- Efficient catalyst substrate with good thermal and hydrothermal stability
- Efficient photocatalyst for formulation of self-cleaning construction materials, such as concrete or mineral plasters
- Suitable for the construction of efficient dye-sensitized solar cells
- Efficient and overdyable heat stabilizer for silicone vulcanizates at process temperatures to more than 200 °C
- Improvement of the flammability protection of silicone vulcanizates
- Additive and raw material for ceramic and metal materials as bonding agent, sintering additive, or structural component
- Dry coating of cathode materials in Li-ion batteries to increase performance and life-time

Packaging and storage

AEROXIDE® TiO₂ P 25 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. AEROXIDE® TiO₂ P 25 should be used within 2 years after production.

Safety and handling

Information concerning the safety of this product is listed in the corresponding Safety Data Sheet, which will be sent with the first delivery or upon updating. Such information is also available from Evonik Operations, Product Safety Department, E-MAIL sds-im@evonik.com We recommend to read carefully the safety data sheet prior to the use of our product.

This information and any recommendations, technical or otherwise, are presented in good faith and believed to be correct as of the date prepared. Recipients of this information and recommendations must make their own determination as to its suitability for their purposes. In no event shall Evonik assume liability for damages or losses of any kind or nature that result from the use of or reliance upon this information and recommendations. EVONIK EXPRESSLY DISCLAIMS ANY REPRESENTATIONS AND WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED, AS TO THE ACCURACY, COMPLETENESS, NON-INFRINGEMENT, MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE (EVEN IF EVONIK IS AWARE OF SUCH PURPOSE) WITH RESPECT TO ANY INFORMATION AND RECOMMENDATIONS PROVIDED. Reference to any trade names used by other companies is neither a recommendation nor an endorsement of the corresponding product, and does not imply that similar products could not be used. Evonik reserves the right to make any changes to the information and/or recommendations at any time, without prior or subsequent notice.

Customer Service

Europe/ Middle-East/ Africa/ Latin America

Evonik Operations GmbH
Business Line Silica
PB 010-A410
Rodenbacher Chaussee 4
63457 Hanau-Wolfgang
Germany
PHONE +49 6181 59 12532
FAX +49 6181 59 712532
aerosil@evonik.com
www.silica-specialist.com

North America Evonik Corporation

Business Line Silica
299 Jefferson Road
Parsippany, NJ 07054-0677
USA
PHONE +1 800-233-8052
FAX +1 973-929-8502
aerosil@evonik.com
www.silica-specialist.com

Asia (excluding Japan) Evonik (SEA) Pte. Ltd.

Business Line Silica
3 International Business Park
Nordic European Centre, #07-18
Singapore 609927
PHONE +65 6809-6877
FAX +65 6809-6677
aerosil@evonik.com
www.silica-specialist.com

Japan NIPPON AEROSIL CO., LTD.

Marketing & Sales Division
P.O. Box 7015
Shinjuku Monolith 13F
3-1, Nishi-Shinjuku 2-chrome
Shinjuku-ku, Tokyo
163-0913 Japan
PHONE +81 3 3342-1789
FAX +81 3 3342-1761
infonac@evonik.com
www.aerosil.jp

Technical Service

Europe/ Middle-East/ Africa/ Latin America

Evonik Operations
Business Line Silica
HPC 911-221 A
Rodenbacher Chaussee 4
63457 Hanau-Wolfgang
Germany
PHONE +49 6181 59-3936
FAX +49 6181 59 4489
technical.service.aerosil@evonik.com
www.silica-specialist.com

North America Evonik Corporation

Business Line Silica
2 Turner Place
Piscataway, NJ 08855-0365
USA
PHONE +1 888 SILICAS
PHONE +1 732 981-5000
FAX +1 732 981-5275
technical.service.aerosil@evonik.com
www.silica-specialist.com

Asia (excluding Japan) Evonik Specialty Chemicals (Shanghai) Co.,Ltd

Business Line Silica
55 Chundong Road
Xinzhuang Industry Park
Shanghai 201108
P.R. China
PHONE +86 21 6119-1151
FAX +86 21 6119-1075
technical.service.aerosil@evonik.com
www.silica-specialist.com

Japan NIPPON AEROSIL CO., LTD.

Applied Technology Group
3 Mita-Cho
Yokkaichi, Mie
510-0841 Japan
PHONE +81 59 345-5270
FAX +81 59 346-4657
infonac@evonik.com
www.aerosil.jp