

ULTRASIL® 6000 GR

Characteristic physico-chemical data*

Properties and test methods	Unit	Value
Specific surface area (N ₂) Multipoint following ISO 9277	m ² /g	168
Specific surface area (CTAB) following ISO 5794-1G	m ² /g	160
Loss on drying 2 h at 105°C following ISO 787-2	%	5.5
pH value 5 % in water following ISO 787-9	-	6.5
Pour density following ASTM D1513	g/l	280
Electrical conductivity 4 % in water following ISO 787-14	μS/cm	≤ 1000
SA Ro-Tap (> 300 μm) following ISO 5794-1F	%	≥ 80
SA Ro-Tap (< 75 μm) following ISO 5794-1F	%	≤ 10
SiO ₂ content ²⁾ following ISO 3262-19	%	≥ 97
Fe content ¹⁾ internal method	ppm	≤ 400
Cu content ¹⁾ internal method	ppm	≤ 6
Mn content ¹⁾ internal method	ppm	≤ 6

1) based on original substance
2) based on ignited substance (2 h/1000°C)
*) The given data are typical values. Specifications on request.

Chemical description

SiO₂, synthetically produced amorphous silicon dioxide

Registration

ULTRASIL® 6000 GR

CAS-No.	112926-00-8 7631-86-9
C&L inventory (Europe)	notified
EC (Europe)	231-545-4
REACH (Europe)	registered
ENCS (Japan)	registered
KECI (Korea)	registered
NZIoC (New Zealand), AICS (Australia)	registered
PICCS (Philippines)	registered
TSCA (USA)	registered
DSL (Canada), TSCA (USA)	registered

Precipitated silica for use as a white reinforcing filler in the rubber industry.

Properties and applications

ULTRASIL® 6000 GR is a mechanically compacted granulate. On account of the granulation process it leads to less dust development during conveying and mixing.

ULTRASIL® 6000 GR is a highly dispersible (HD) and strongly reinforcing silica which has been especially developed for application in high performance (HP) and ultra high performance (UHP) passenger car tire tread compounds. It imparts to tread compounds high abrasion resistance combined with excellent rolling resistance, wet traction and high dynamic stiffness for a good dry handling behavior.

The bifunctional organosilanes such as Si 69°, Si 75°, Si 266° or Si 363° are required for the use of precipitated silica in tire tread compounds. The use of diethylene glycol, triethanolamine or other alkaline accelerators might be necessary in order to achieve optimum in-rubber data.

Application fields are: Tires, mechanical rubber goods.

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 Resource Efficiency GmbH, Product Safety Department, E-MAIL: sds-hu@evonik.com. We recommend to read carefully the safety data sheet prior to the use of our product.

Packaging and storage

For details regarding our packaging options for this product, please contact your local sales representative.

Our silica products are inert and extremely stable chemically. However, due to their high specific surface area, they can absorb moisture and volatile organic compounds from the surrounding atmosphere. Therefore, we recommend storing the products in sealed containers in a dry, cool place, and removed from volatile organic substances. Even if a product is stored under these conditions, after a longer period it can still pick up ambient moisture over time, which could lead to its exceeding the specified moisture content. For this reason, our recommended use-by date is 24 months after date of manufacture. Product more than 24 months old should be tested for moisture content before use in order to make certain that it is still suitable for the intended application.

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Applied Technology

Evonik Resource Efficiency GmbH

Business Line Silica
Applied Technology Tire & MRG
Brühler Straße 2
50389 Wesseling
Germany
PHONE +49 2236 76 3489
ask-si@evonik.com
www.ultrasil.de

Europe/ Middle-East/

Africa/ Latin America

Evonik Resource Efficiency GmbH

Business Line Silica
Rodenbacher Chaussee 4
63457 Hanau-Wolfgang
Germany
PHONE +49 6181 59 8118
FAX +49 6181 59 78118
ask-si@evonik.com
www.ultrasil.de

North America

Evonik Corporation

Business Line Silica
299 Jefferson Road
Parsippany, NJ 07054-0677
USA
PHONE +1 888 745-4227
FAX +1 732 981-5275
ask-si@evonik.com
www.ultrasil.de

Asia-Pacific

Evonik (SEA) Pte. Ltd.

Business Line Silica
3 Internatioanl Business Park
#07-18, Nordic European Centre
Singapore 609927
PHONE +65 6 809 6851
FAX +65 6 809 6651
ask-si-asia@evonik.com
www.ultrasil.de