

ULTRASIL® 880

Characteristic physico-chemical data

Properties and test methods	Unit	Value
Specific surface area (N ₂) Multipoint following ISO 9277	m ² /g	35
Loss on drying 2 h at 105°C following ISO 787-2	%	5.5
pH value 5 % in water following ISO 787-9	-	10.5
Tamped density following ISO 787-11	g/l	260
Sieve residue Mocker 45 µm following ISO 787-18	%	≤ 0.15
Loss on ignition ²⁾ 2 h at 1000°C following ISO 3262-1	%	≤ 10.5
SiO ₂ content ³⁾ following ISO 3262-19	%	≥ 87
Ca content ¹⁾ internal method	%	6.5
Fe content ¹⁾ internal method	ppm	≤ 400
Cl content ¹⁾ internal method	%	≤ 1
Na content ¹⁾ internal method	%	≤ 2
1) based on original substance 2) based on dry substance (2h/105°C) 3) based on ignited substance (2 h/1000°C) *) The given data are typical values. Specifications on request.		

Chemical description

SiO₂/CaO, synthetically produced amorphous silicon dioxide/calcium silicate

Registration

ULTRASIL® 880

CAS-No.	1344-95-2
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
IECSC (China)	registered
DSL (Canada), TSCA (USA)	registered

ULTRASIL® 880 is a precipitated silica with a Calcium admixture and a very low specific BET surface area of approximately 35 m²/g.

Properties and applications

ULTRASIL® 880 has medium reinforcing potential. It imparts excellent compression set and extrusion properties to rubber compounds. ULTRASIL® 880 thus allows the production of profiles with low die swell and very smooth surfaces. Even EPDM compounds with extremely high filler loading can still easily be processed. In white compounds ULTRASIL® 880 can be used as a partial replacement for titanium dioxide. Sulfur cure is only marginally affected.

Application fields are: Mechanical rubber goods.

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.

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.

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