

ULTRASIL® VN 3 GR

Characteristic physico-chemical data

Properties and test methods	Unit	Value
Specific surface area (N ₂) Multipoint following ISO 9277	m ² /g	180
Specific surface area (CTAB) following ISO 5794-1G	m ² /g	167
Loss on drying 2 h at 105°C following ISO 787-2	%	5.5
pH value 5 % in water following ISO 787-9	-	6.2
Pour density following ASTM D1513	g/l	280
SA Ro-Tap (> 300 μm) following ISO 5794-1F	%	≥ 80
SA Ro-Tap (< 75 μm) following ISO 5794-1F	%	≤ 10
Electrical conductivity 4 % in water following ISO 787-14	μS/cm	≤ 1300
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 (divergent typical values for products ex China & India). Specifications on request.

Chemical description

SiO₂, synthetically produced amorphous silicon dioxide

Registration

ULTRASIL® VN 3 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
IECSC (China)	registered
DSL (Canada), TSCA (USA)	registered

ULTRASIL® VN 3 GR as a precipitated silica is used as a reinforcing filler in all kind of rubber applications.

Properties and applications

ULTRASIL® VN 3 GR is a mechanically compacted granulate. On account of the granulation process it leads to less dust development during mixing.

ULTRASIL® VN 3 GR has a high reinforcing potential and imparts to rubber compounds high Shore hardness, tensile strength, tear resistance and abrasion resistance. In order to achieve optimum rubber-technical data the addition of activators like glycols, amines or other alkaline accelerators is necessary. On account of the higher surface area ULTRASIL® VN 3 GR can provide vulcanizates of excellent transparency.

Application fields are: Tires, mechanical rubber goods, cables and shoe soles of all kinds.

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.

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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