

## Product Information SIPERNAT® D 10

### Characteristic physico-chemical data\*)

Properties and Test Methods	Units	SIPERNAT® D 10
<b>Specific surface area (N<sub>2</sub>)</b> Areometer following ISO 5794-1, Annex D	m <sup>2</sup> /g	90
<b>Mean particle size</b> Multisizer, 100 µm capillary following ASTM C 690-1992	µm	4.5
<b>Tamped density</b> not sieved following ISO 787-11	g/l	100
<b>Loss on drying</b> 2 h at 105° C following ISO 787-2	%	3
<b>Loss on ignition <sup>2)</sup></b> 2 h at 1000° C following ISO 3262-1	%	7
<b>pH value,</b> 5% in water/methanol = 1:1 following ISO 787-9		10.3
<b>DBP absorption <sup>2)</sup></b> following DIN 53601	g/100g	230
<b>SiO<sub>2</sub> content <sup>3)</sup></b> following ISO 3262-19	%	98
<b>Na content as Na<sub>2</sub>O <sup>3)</sup></b> following ISO 3262-18	%	1
<b>Fe content as Fe<sub>2</sub>O<sub>3</sub> <sup>3)</sup></b> following ISO 5794-1, Annex C	%	0.03
<b>Sulfate content as SO<sub>3</sub> <sup>1)</sup></b> Degussa method	%	0.8
<b>Carbon content</b> elemental analyser LECO Degussa method	%	3
<b>Wettability by methanol</b> Degussa method	%	60
<b>Sieve residue 45 µm</b> Mocker following ISO 787-18	%	0.01
<b>Package size (net)</b>	kg	15

SIPERNAT®-designated products represent a specific product range of Performance Silica, aluminium and calcium silicates.

Careful adjustment of parameters such as surface area, particle size, purity, oil absorption capacity or hydrophobicity results in products with different properties.

SIPERNAT® D 10 is a very fine particle hydrophobic silica. SIPERNAT® D 10 contains app. 3 % chemically bound carbon and is therefore not wettable with water.

The wettability of SIPERNAT® D 10 with methanol is app. 60 % and indicates its highly hydrophobic character.

### Registrations

CAS-RN of Product	67762-90-7
EINECS (Europe)	exempted (defined as polymer, therefore not listed)
ENCS (Japan)	1-548/7-476
ECL (South Korea)	KE-31207
TSCA (USA) AICS (Australia) PICCS (Philippines) DSL (Canada) IECS (China)	registered

1) based on original substance

2) based on dried substance

3) based on ignited substance

\*) **The given data are typical values. Specifications on request.**

**Storage properties:** To ensure that the product and its applications properties remain fixed, Performance Silica should be stored in closed, dry locations and protected from volatile substances. Although proper storage will provide for a long useful product life without any expiry date, it is frequently difficult to accomplish. We therefore recommend to retest moisture uptake of hydrophilic grades after one year and of hydrophobic grades after two years.

# Range of Performance Silica Products

Applications for SIPERNAT®					
<b>Free-flow aid, anticaking</b>	SIPERNAT® 320 SIPERNAT® 320 DS SIPERNAT® 360 SIPERNAT® 500 LS	SIPERNAT® 22 SIPERNAT® 22 S SIPERNAT® 22 LS SIPERNAT® 50	SIPERNAT® 50 S SIPERNAT® D 10 SIPERNAT® D 17 SIPERNAT® 820 A	SIPERNAT® 880 SIPERNAT® 609 SIPERNAT® 612 SIPERNAT® 514	
<b>Carrier silica</b>	SIPERNAT® 320 SIPERNAT® 350 SIPERNAT® 360	SIPERNAT® 500 LS SIPERNAT® 22 SIPERNAT® 2200	SIPERNAT® 2300 SIPERNAT® 22 S SIPERNAT® 22 LS	SIPERNAT® 50 SIPERNAT® 50 S	
<b>Partial replacement of titanium dioxide</b>	SIPERNAT® 820 A				
<b>Thickening</b>	SIPERNAT® 320 DS SIPERNAT® 500 LS	SIPERNAT® 22 S SIPERNAT® 22 LS	SIPERNAT® 50 S SIPERNAT® 609	SIPERNAT® 612 SIPERNAT® 514	
<b>Antiblocking</b>	SIPERNAT® 310				
<b>Antislip, Antiplateout</b>	SIPERNAT® 310				
<b>PE battery seperators</b>	SIPERNAT® 325 C				
<b>Filler auxiliary in printing inks</b>	SIPERNAT® 320 DS				
<b>Production of defoamers</b>	SIPERNAT® 320 DS SIPERNAT® 35 SIPERNAT® 312 BF	SIPERNAT® 383 DS SIPERNAT® 22 SIPERNAT® 50	SIPERNAT® D 10 SIPERNAT® D 11 SIPERNAT® D 13	SIPERNAT® D 17	
<b>Auxiliary in polychloroprene adhesives</b>	SIPERNAT® 320 DS				
<b>Clarifier and adsorbent for liquid systems</b>	SIPERNAT® 700 SIPERNAT® 303				
<b>Grinding aid</b>	SIPERNAT® 320 SIPERNAT® 350	SIPERNAT® 22 SIPERNAT® 22 S	SIPERNAT® 50 SIPERNAT® 50 S	SIPERNAT® D 17	
<b>Insulation</b>	SIPERNAT® 500 LS				
<b>Paper</b>	– Filler		SIPERNAT® 22 S		
	– Coating pigment		SIPERNAT® 820 A		
	– Photocopy paper		SIPERNAT® 320 DS		
	– Inkjet		SIPERNAT® 310 SIPERNAT® 320 DS	SIPERNAT® 570 SIPERNAT® 304 N	SIPERNAT® 312 BM SIPERNAT® 312 AM
	– Thermal paper		SIPERNAT® 350		
	– Thermal sublimation		SIPERNAT® 101 M		
<b>Reinforcement of silicone rubber and sealants</b>	SIPERNAT® 120 SIPERNAT® 160	SIPERNAT® 200 SIPERNAT® D 10	SIPERNAT® D 11 SIPERNAT® D 13	SIPERNAT® D 17	
<b>Pharmaceutical products</b>	SIPERNAT® 160 PQ				

Applications for ULTRASIL®			
<b>Tires</b>	ULTRASIL® VN 3 GR	ULTRASIL® 7000 GR	ULTRASIL® 7005
<b>Shoe soles</b>	ULTRASIL® VN 2	ULTRASIL® VN 3	ULTRASIL® 7000 GR
	ULTRASIL® VN 2 GR	ULTRASIL® VN 3 GR	ULTRASIL® 7005
<b>Mechanical Rubber Goods</b>	ULTRASIL® VN 2	ULTRASIL® VN 3 GR	ULTRASIL® 360
	ULTRASIL® VN 2 GR	ULTRASIL® 7000 GR	ULTRASIL® 880
	ULTRASIL® VN 3	ULTRASIL® 7005	ULTRASIL® AS 7

Applications for SIDENT®		
<b>Thickening and Abrasive Silica for Toothpastes</b>	SIDENT® 8 SIDENT® 9	SIDENT® 10 SIDENT® 22 S

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