



PRODUCT DATA

SILBOND cristobalite flours

SILBOND cristobalite flour is the name for a number of surface-treated fillers that are produced from processed cristobalite by iron-free grinding with subsequent air separation and coating with an organo-silicon compound.

EST treated with Epoxisilane
MST treated with Methacrylsilane
RST treated with Trimethylsilane
TST treated with Methylsilane

The type of surface treatment is defined by the following three-letter code added to the characteristic grain data:

Typical grain sizes

SILBOND	006 MST	3000 MST 3000 RST-M	4000 MST	6000 EST 6000 MST 6000 RST	8000 RST 8000 TST
Upper grain size $d_{95\%}$ in μm	120	28	18	10	7
Medium grain size $d_{50\%}$ in μm	33	7	5	3	3
Grain Diameter in μm	Particle Size Distribution Cilas-Granulometer (Residue in volume %)				
128	2				
64	25*				
32	54	2			
16	65	18	8		
12	78	34	17	4	
8	83	46	36	13	3
6	87	53	47	28	7
4	90	62	58	42	30
2	95	80	78	72	69

*Alpine Luftstrahlsieb: $>63\mu\text{m}$ 25 wt-%

HS-No.: 2506 1000

Quarzwerke product data

SILBOND-cristobalite flours

Typical physical properties	
Density (DIN ISO 787-10)	2,35 g/ml
pH-Value (DIN iso 10390)	9
Mohs hardness	6,5
Linear coefficient of thermal expansion α 20 - 300°C (DIN 51045)	$54 \cdot 10^{-6} \cdot K^{-1}$

Typical chemical analysis and grain size related properties					
SILBOND	006 MST	3000 MST 3000 RST-M	4000 MST	6000 EST 6000 MST 6000 RST	8000 RST 8000 TST
Chemical analysis (weight %)					
SiO ₂	99	99	99	99	98,5
Al ₂ O ₃	0,25	0,25	0,25	0,5	1
Fe ₂ O ₃	0,05	0,05	0,05	0,05	0,05
CaO + MgO	0,1	0,1	0,1	0,1	0,1
Na ₂ O + K ₂ O	0,2	0,2	0,2	0,2	0,2
Loss on ignition 1000° C DIN en iso 3262-7	0,2	0,2	0,3	0,45	0,55
Bulk density (g/cm ³) DIN 53466	1,05	0,55	0,5	0,45	0,4
Spec. surface DIN 66132 - BET (cm ² /g)	0,4	3,5	4	5	6,5
Oil absorption (g/100g) DIN ISO 787-5	21	23	26	27	27
Tristimulus values DIN 5033					
X	87	88	88	89	92
Y	88	90	90	91	94
Z	105	105	105	106	111

SILBOND-cristobalite flour is produced from prepared natural raw minerals. All data are approximate values with tolerances depending on occurrences and production. They only serve as description and do not represent any warranty concerning the existence of specific characteristics. Traces of coarser particles may be possible.

It applies to the user to test the suitability for his purposes. If wanted, we are prepared to give further information on tolerances and on our experience in technical applications. Sales are subject to our sales and delivery conditions.