

### Features & Benefits

**SILVERBOND® M** silica flours are produced by iron-free grinding and accurate sieving by use of air-separators. A selected silica sand with a SiO<sub>2</sub> content of over 99 % is used as raw material. The purity, controlled particle size distribution, chemical inertness, optical properties and hardness make **SILVERBOND® M** the performance standard for filler applications.

### Granulometric Data & Physical Characteristics

Mean values. These do not represent a specification.

		M6	M10	M300	M400	Method
CLP Classification		STOT RE 2	STOT RE 1	STOT RE 1	STOT RE 1	
+ 63 µm	%	14	2			ISO 933-10
+ 40 µm	%			2	0.2	ISO 933-10
D <sub>10</sub>	µm	5	4	4	3.5	Laser diffraction
D <sub>50</sub>	µm	33	23	19	12	
D <sub>90</sub>	µm	99	63	44	27	
SSA	m <sup>2</sup> / mg	0.8	1	1.2	1.9	BET
	m <sup>2</sup> / mg	0.32	0.37	0.41	0.66	ASTM C204
Colour	L*	91	92	93	94	Spectrophotometer
	a*	0.5	0.5	0.5	0.4	
	b*	2.7	2.5	2.2	2	
Oil absorption	g/100 g	22	22	26	28	ISO 787/9
pH	-	7	7	7	7	
Density	g/cm <sup>3</sup>	2.65	2.65	2.65	2.65	He-pyknometer
Bulk density	g/cm <sup>3</sup>	0.8	0.8	0.85	0.53	Scott Volumeter
Hardness	Mohs	7	7	7	7	
Refractive index		1.55	1.55	1.55	1.55	

		M500	M600	M800	Method
CLP Classification		STOT RE 1	STOT RE 1	STOT RE 1	
+ 40 µm	%	0.004	0.004	0.001	ISO 933-10
D <sub>10</sub>	µm	2.2	2.6	0.4	Laser diffraction
D <sub>50</sub>	µm	5	5	1.8	
D <sub>90</sub>	µm	11.7	11.3	4.2	
SSA	m <sup>2</sup> / mg	3.73		7.04	BET
	m <sup>2</sup> / mg	1.2	1.2	1.5	ASTM C204
Colour	L*	95	95	96.6	Spectrophotometer
	a*	0.2	0.2	0.3	
	b*	2	2	2	
Oil absorption	g/100 g	23	24	?	
pH	-	7	7	7	ISO 787/9
Density	g/cm <sup>3</sup>	2.65	2.65	2.65	He-pyknometer
Bulk density	g/cm <sup>3</sup>	0.42	0.4	0.34	Scott Volumeter
Hardness	Mohs	7	7	7	
Refractive index		1.55	1.55	1.55	

## Chemical Analysis

Mean values. These do not represent a specification.

	Weight-%							Method
	M6	M10	M300	M400	M500	M600	M800	
SiO <sub>2</sub>	99.5	99.5	99.5	99.5	99.2	99.2	98.5	XRF
Fe <sub>2</sub> O <sub>3</sub>	0.03	0.03	0.01	0.03	0.05	0.05	0.015	XRF
Al <sub>2</sub> O <sub>3</sub>	0.2	0.2	0.2	0.2	0.4	0.4	0.9	XRF
TiO <sub>2</sub>	0.03	0.03	0.03	0.03	0.03	0.03	0.2	XRF
K <sub>2</sub> O	0.05	0.05	0.05	0.05	0.05	0.05	0.05	XRF
CaO	0.02	0.02	0.02	0.02	0.02	0.02	0.03	XRF
L.O.I.	0.15	0.12	0.12	0.15	0.3	0.3	0.3	1100 °C, 1 hour

## For Product Information, Availability & Customer Service

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### General

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