AN EOS COMPANY

Ultrasint® PA6 MF

NYLON 6

Ultrasint PA6 MF is the material of choice for advanced technical applications where properties of mechanically reinforced thermoplastics are needed.

HIGHLIGHTS

→ Mineral-filled Polyamide 6-based powder for Laser Sintering

APPLICATIONS

→ Engine compartment parts

→ Piping & Media flow/storage parts

→ Housings & covers

→ Tooling equipment & molds

HEADQUARTERS

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TYPICAL PHYSICAL PROPERTIES		
PROPERTY	**TEST METHOD**	**TYPICAL VALUES**
Bulk Density / kg/m³	DIN EN ISO 60	600
Printed Part Density / kg/m³	DIN EN ISO 1183-1	1440
Mean particle size d50 / µm	Laser Diffraction	65-75
Melting Temperature / °C	ISO 11357 (20 K/min)	219
Crystallization Temperature / °C	ISO 11357 (20 K/min)	174
Melt Volume Flow Rate / cm³/10min	ISO 1133 (240 °C, 2.16 kg)	7
HDT/A (1.8 MPa) / °C	ISO 75-2	121
HDT/B (0.45 MPa) / °C	ISO 75-2	209
Vicat/A (10 N) / °C	ISO 306	217
Vicat/B (50 N) / °C	ISO 306	210

TYPICAL PHYSICAL PROPERTIES					
PROPERTY	**TEST METHOD**	**TYPICAL VALUES X-DIRECTIONS**		**TYPICAL VALUES Z-DIRECTIONS**	
		Dry[1]	**Cond.[2]**	**Dry[1]**	**Cond.[2]**
Tensile Strength / MPa	ISO 527-2	91	62	50	40
Tensile Modulus / MPa	ISO 527-2	6250	3300	5900	3100
Tensile Elongation at break / %	ISO 527-2	2.1	7.0	0.9	1.6
Flexural Modulus / MPa	DIN EN ISO 178	6000	2750	5400	2600
Charpy Impact Strength (notched) / kJ/m²	ISO 179-1	2.7	3.1	1.9	2.3
Charpy Impact Strength (unnotched) / kJ/m²	ISO 179-1	13.2	27.8	4.6	3.9
Izod Impact Strength (notched) / kJ/m²	ISO 180	4.2	4.4	2.8	3.6
Izod Impact Strength (unnotched) / kJm²	ISO 180	13.1	24.1	5.1	4.6

The material properties provided herein are for reference purposes only. Actual values may vary significantly as they are dramatically affected by part geometry and process parameters. Material specifications are subject to change without notice.