AN EOS COMPANY

Ultrasint® PA6 LM

NYLON 6

Ultrasint PA6 LM is a special powder material designed to maximize production accessibility to any PBF user.

HIGHLIGHTS

→ Low melting Polyamide 6-based powder for Laser Sintering

APPLICATIONS

→ Functional prototypes (i.e. in automotive industries)

→ High performance spare parts

→ Multi-purpose industrial goods

→ Durable and rigid jigs & fixtures

HEADQUARTERS

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TYPICAL PHYSICAL PROPERTIES		
PROPERTY	**TEST METHOD**	**TYPICAL VALUES**
Bulk Density / kg/m³	DIN EN ISO 60	590
Printed Part Density / kg/m³	DIN EN ISO 1183-1	1370
Mean particle size d50 / µm	Laser Diffraction	80
Melting Temperature / °C	ISO 11357 (20 K/min)	193
Crystallization Temperature / °C	ISO 11357 (20 K/min)	149
Melt Volume Flow Rate / cm³/10min	ISO 1133 (240 °C, 2.16 kg)	3
HDT/A (1.8 MPa) / °C	ISO 75-2	98
HDT/B (0.45 MPa) / °C	ISO 75-2	183
Vicat/A (10 N) / °C	ISO 306	194
Vicat/B (50 N) / °C	ISO 306	185

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 (23° C)	73	44	49	32
Tensile Modulus / MPa	IISO 527-2 (23° C)	4950	1500	4250	1350
Tensile Elongation at break / %	ISO 527-2 (23° C)	2.8	17	1.3	5.5
Tensile Strength / MPa	ISO 527-2 (80° C)	38	25	28	18
Tensile Modulus / MPa	ISO 527-2 (80° C)	1250	650	1100	600
Tensile Elongation at break / %	ISO 527-2 (80° C)	19	24	6.5	7.8
Flexural Modulus / MPa	DIN EN ISO 178	4500	1450	3650	1200
Charpy Impact Strength (notched) / kJ/m²	ISO 179-1	3.0	5.6	2.8	4.2
Charpy Impact Strength (unnotched) / kJ/m² 18 52 5.7 9.7	ISO 179-1	18	52	5.7	9.7
Izod Impact Strength (notched) / kJ/m²	ISO 180	3.8	6.6	3.3	5.3
Izod Impact Strength (unnotched) / kJ/m²	ISO 180	15	28	6.0	6.0

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.