



AN EOS COMPANY



Ultrasint® PA6

NYLON 6

PA 6 from BASF is a tough and strong material affording parts with good damping characteristics and high shock resistance even in the dry state and at low temperatures.

HIGHLIGHTS

- Ultrasint PA6 black comes in solid black color
- Ultrasint PA6 comes in solid natural white color

APPLICATIONS

- Engine compartment parts
- Jigs & fixtures
- Fluid reservoirs
- Multi-purpose industrial goods



HEADQUARTERS

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TYPICAL PHYSICAL PROPERTIES		
PROPERTY	TEST METHOD	TYPICAL VALUES
Bulk Density / kg/m ³	DIN EN ISO 60	520
Printed Part Density / kg/m ³	DIN EN ISO 1181-1	1150
Mean particle size d50 / μm	Laser Diffraction	65-75
Melting Temperature / °C	ISO 11357 (20 K/min)	220
Crystallization Temperature / °C	ISO 11357 (20 K/min)	172
Melt Volume Flow Rate / cm ³ /10min	ISO 1133 (240 °C, 2.16 kg)	24
HDT/A (1.8 MPa) / °C	ISO 75-2	103
HDT/B (0.45 MPa) / °C	ISO 75-2	192
Vicat/A (10 N) / °C	ISO 306	217
Vicat/B (50 N) / °C	ISO 306	198

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)	66	47	56	38
Tensile Modulus / MPa	ISO 527-2 (23 °C)	3700	1700	3800	1850
Tensile Elongation at break / %	ISO 527-2 (23 °C)	2.0	16	1.6	4.4
Tensile Strength / MPa	ISO 527-2 (80 °C)	46	28	39	19
Tensile Modulus / MPa	ISO 527-2 (80 °C)	1300	600	1700	650
Tensile Elongation at break / %	ISO 527-2 (80 °C)	50	57	10	8
Flexural Modulus / MPa	DIN EN ISO 178	3350	1800	3600	1900
Charpy Impact Strength (notched) / kJ/m ²	ISO 179-1	2.2	2.0	1.7	1.6
Charpy Impact Strength (unnotched) / kJ/m ²	ISO 179-1	7.5	6.8	4.7	5.4
Izod Impact Strength (notched) / kJ/m ²	ISO 180	2.6	3.2	2.4	2.9
Izod Impact Strength (unnotched) / kJ/m ²	ISO 180	7.2	7.1	5.4	4.8

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.