



FARSOON

TECHNOLOGIES

Material Specifications

FS3200PA

Nylon powder

- Excellent mechanical properties
- Good recyclability
- Color stable
- Good Antioxidative properties
- Size stability
- Low water absorption and easy-to-process
- Produce prototype pieces and end-use parts without tooling
- Create accurate and repeatable parts as demanded by manufacturers



Performance	Metric	Imperial	Testing Standard
General Properties			
Bulk Density	0.4 g/cm ³	0.014 lb/in ³	
Density of Parts	0.95 g/cm ³	0.034 lb/in ³	
Thermal Properties			
Melting Point	183 °C	361 °F	
Heat Deflection Temperature (HDT) 1.8 Mpa	58.2 °C	136.7 °F	GB/T 1040.2-2006
0.45 Mpa	145.8 °C	294.4 °F	GB/T 1040.2-2006
Mechanical Properties			
Tensile Strength	48.1 Mpa	6974 psi	GB/T 1040.2-2006
Tensile Modulus	1646 Mpa	238 ksi	GB/T 1040.2-2006
Elongation at Break	38 %	38 %	GB/T 1040.2-2006
Flexural Strength	43.5 Mpa	6307 psi	GB/T 1040.2-2006
Flexural Modulus	1431 Mpa	207 ksi	GB/T 1040.2-2006
Impact Strength (notched Izod)	3.6 KJ/m ²	1.71 ft-lb/in ²	GB/T 1843-2008
Impact Strength (unnotched Izod)	17.8 KJ/m ²	8.46 ft-lb/in ²	GB/T 1843-2008

* All above data tested by authorized third party testing institutions with samples supplied by Farsoon. For reference only.

FS3400GF

Glass bead filled nylon powder

- Higher modulus range than standard FS3200PA
- Higher heat deflection rates
- Used in automotive industries
- Good for parts which require enhanced stiffness.



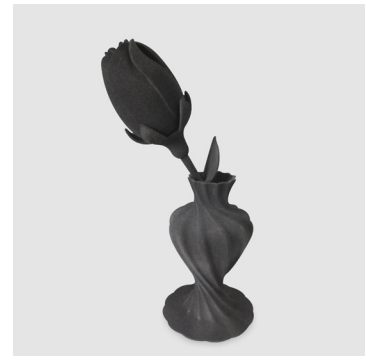
Performance	Metric	Imperial	Testing Standard
General Properties			
Bulk Density	0.67 g/cm ³	0.024 lb/in ³	
Density of Parts	1.26 g/cm ³	0.046 lb/in ³	
Thermal Properties			
Melting Point	184 °C	363 °F	
Heat Deflection Temperature (HDT) 1.8 Mpa	88 °C	190 °F	GB/T 1634.2-2006
0.45 Mpa	162 °C	324 °F	GB/T 1634.2-2006
Mechanical Properties			
Tensile Strength	44 Mpa	6380 psi	GB/T 1040.2-2006
Tensile Modulus	3500 ~ 7800 Mpa	507 - 1131 ksi	GB/T 1040.2-2006
Elongation at Break	5 %	5 %	GB/T 1040.2-2006
Flexural Strength	68 Mpa	9860 psi	GB/T 1040.2-2006
Flexural Modulus	2415 Mpa	350 ksi	GB/T 1040.2-2006
Impact Strength (notched Izod)	4.13 KJ/m ²	1.96 ft-lb/in ²	GB/T 1843-2008
Impact Strength (unnotched Izod)	19.28 KJ/m ²	9.17 ft-lb/in ²	GB/T 1843-2008

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FS3400CF

Carbon fiber filled nylon powder

- Improved strength
- Good heat deflection rates
- Good modulus range
- Used in aerospace and automotive industries
- Uniform black color



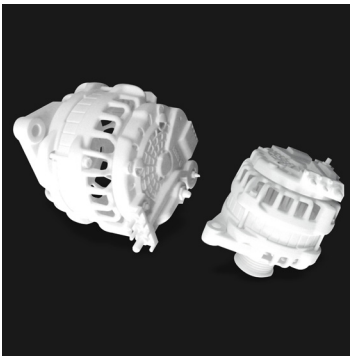
Performance	Metric	Imperial	Testing Standard
General Properties			
Bulk Density	0.51 g/cm ³	0.018 lb/in ³	
Density of Parts	1.08 - 1.10 g/cm ³	0.039 - 0.040 lb/in ³	
Thermal Properties			
Melting Point	184 °C	363 °F	
Heat Deflection Temperature (HDT) 1.8 Mpa	72 °C	162 °F	GB/T 1040.2-2006
0.45 Mpa	168 °C	334 °F	GB/T 1040.2-2006
Mechanical Properties			
Tensile Strength	65-70 Mpa	9425 - 10150 psi	GB/T 1040.2-2006
Tensile Modulus	4700 - 6500 Mpa	681 - 942 ksi	GB/T 1040.2-2006
Elongation at Break	3.0 - 4.0 %	3.0 - 4.0 %	GB/T 1040.2-2006
Flexural Strength	94 - 113 Mpa	13630 - 16385 psi	GB/T 1040.2-2006
Flexural Modulus	4500 - 5600 Mpa	652 - 812ksi	GB/T 1040.2-2006
Impact Strength (notched Izod)	n/a	n/a	
Impact Strength (unnotched Izod)	n/a	n/a	

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FS3250MF

Mineral filled nylon powder

- Stable size, smooth surface
- Good recyclability
- High resistance to thermal deformation
- Small contractive rate;
- Good mechanical properties due to the addition of mineral fabric



Performance	Metric	Imperial	Testing Standard
General Properties			
Bulk Density	0.55 g/cm ³	0.019 lb/in ³	
Density of Parts	1.20 g/cm ³	0.043 lb/in ³	
Thermal Properties			
Melting Point	183 °C	361 °F	
Heat Deflection Temperature (HDT) 1.8 Mpa	n/a	n/a	GB/T 1040.2-2006
0.45 Mpa	n/a	n/a	GB/T 1040.2-2006
Mechanical Properties			
Tensile Strength	51 Mpa	7395 psi	GB/T 1040.2-2006
Tensile Modulus	6130 Mpa	888 ksi	GB/T 1040.2-2006
Elongation at Break	5 %	5 %	GB/T 1040.2-2006
Flexural Strength	76 Mpa	11020 psi	GB/T 1040.2-2006
Flexural Modulus	4633 Mpa	671 ksi	GB/T 1040.2-2006
Impact Strength (notched Izod)	5.59 KJ/m ²	2.66 ft-lb/in ²	GB/T 1843-2008
Impact Strength (unnotched Izod)	20.78 KJ/m ²	9.88 ft-lb/in ²	GB/T 1843-2008

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