

PA6

Selective Laser Sintering (SLS)



Ideal material for applications requiring high mechanical strength and excellent thermal distortion stability

Unfilled Nylon 6 material has properties similar to those of injection moulded Nylon 6 parts; enabling the production of components where high mechanical strength and heat stability are key requirements.

Why choose PA6?

- High modulus
- High mechanical strength
- Excellent thermal distortion stability
- Resistance to oil and fluids even at high temperature
- Parts can be joined and smoothed
- Parts can be dyed

Applications

- Interior and exterior automotive components
- Under-bonnet automotive parts (brake fluid containers, air ducts, air intake manifolds, cylinder heads)
- Electrical connectors, circuit breakers
- Functional prototypes and low-mid volume rapid manufacturing

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General properties	Value (XY Axis)	Test method
Colour	White	Visual
Part density	1.15 g/cm ³	ISO 1183

Thermal properties	Value (XY Axis)	Test method
Melting temperature	220° C	ISO 11357-3 (20°C/min)
Heat deflection temperature (0.45Mpa)	192° C	ISO 75B
Heat deflection temperature (1.8Mpa)	103° C	ISO 75A

Mechanical properties	Value (XY Axis)	Test method
Tensile strength, ultimate	66 MPa (23° C) 46 MPa (80° C)	ISO 527
Tensile modulus	3700 MPa (23° C) 1300 MPa (80° C)	ISO 527
Elongation at break	2% (23° C) 50% (80° C)	ISO 527
Flexural modulus	3350 MPa	ISO 178
Impact strength – Charpy (notched, 23°C)	2.2 kJ/m ²	ISO 179
Impact strength – Charpy (un-notched, 23°C)	7.5 kJ/m ²	ISO 180

Get a quote for your parts at rapidfab.ricoh-europe.com

Have a question? Call our friendly team on

+44 (0) 800 304 7196

Specifications are subject to change without notice.

The technical data indicated above is an average value of the test result of a part created under proper management and appropriate conditions.
The value is for reference and is not guaranteed.