

Polyamide 6

Product description

Unreinforced, toughened, PA6, performance polyamide
SenTherm 301-02 HF 1 is a high-performance, high flow thermally conductive resin for injection moulding

Product applications

SenTherm 301-02 HF 1 is a highly flowable injection moulding grade, with consistent thermal conductivity. This grade is suitable for both automotive and LEDS parts offering a cost-effective, low carbon solution for complex shapes.

Product Information

Resin Identification	PA6	ISO 1043
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Rheological properties¹⁾

Properties	Method	Unit	Typical Value*
<i>Mould shrinkage, parallel²⁾</i>	<i>ISO 294-4, 2577</i>	<i>%</i>	<i>0.5</i>
<i>Mould shrinkage, transversal²⁾</i>	<i>ISO 294-4, 2577</i>	<i>%</i>	<i>0.6</i>

Characteristics¹⁾

Properties	Method	Unit	Typical Value*
Density	ISO 1183	Kg/m ³	1360
Melt flow rate 275°C 5kg	ISO1133/T	g/10 min	29.5
Thermal conductivity (Injection moulded)	ASTM D7984	W/mK	1.5
Thermal conductivity (In- plane)	ISO22007	W/mK	5.5
<i>Thermal conductivity (Compression moulded)</i>	<i>ASTM D7984</i>	<i>W/mK</i>	<i>3.0</i>
Tensile modulus (50mm/min)	ISO 527	MPa	2225
Tensile strength (50mm/min)	ISO 527	MPa	58
Strain at break	ISO 527	%	4

Characteristics ¹⁾

Properties	Method	Unit	Typical Value*
Flexural modulus	ISO 178	MPa	4900
<i>Charpy impact (23°C)</i>	<i>ISO 180/1A</i>	<i>kJ/m²</i>	<i>15</i>

Injection ¹⁾

Properties	Unit	Typical Value*
Drying recommended		Yes
Drying temperature	°C	80
Drying time, Dehumidified oven	Hours	4
Process moisture content	%	0.1
Melt temperature	°C	260
Min melt temperature	°C	250
Max melt temperature	°C	270
Min mould temperature	°C	70
Max mould temperature	°C	90
Ejection temperature	°C	190

- 1) The information stated on technical data sheets should be used as indicative only for material selection and not utilised for specifications or part and tool design.
- 2) Measurements have been estimated from moulded laboratory parts; actual shrinkage may be outside these parameters. This is dependant on mould conditions and parameters. Our recommendation is using legacy tooling before cutting on a new moulding tool.

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