301-02 HF 1

SENTHERM SENERGY

Polyamide 6

Product description

Unreinforced, toughened, PA6, performance polyamide
SenTherm 301-02 HF 1is 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

Rheological properties[1)]

Properties	Method	Unit	Typical Value*
Mould shrinkage, parallel [2)]	*ISO 294-4, 2577*	*%*	*0.5*
Mould shrinkage, transversal [2)]	*ISO 294-4, 2577*	*%*	*0.6*

Characteristics [1)]

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
Thermal conductivity (Compression moulded)	*ASTM D7984*	*W/mK*	*3.0*
Tensile modulus (50mm/min)	ISO 527	MPa	2225
Tensile strength (50mm/min)	ISO 527	MPa	58
Strain at break	ISO 527	%	4

Values in italics are estimated

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Characteristics [1)]

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

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.

Values in italics are estimated

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