OVATION POLYMERS

Ovation Polymer Technology & Engineered Materials

Product Data Sheet

Nemcon H PPS DP183

Thermally conductive Polyphenylene Sulfide

Properties*	Standard	Unit	Typical Value
Physical			
Specific Gravity	D 792	g/cm^3	1.715
Mechanical			
Tensile Stress @ brk, 50 mm/min	D 638	MPa.	110
Tensile Strain @ brk, 50 mm/min	D 638	%	3
Tensile Modulus, 50 mm/min	D 638	MPa.	8515
Flexural Stress @ brk, 1.3 mm/min, 50 mm span	D 790	MPa.	175
Flexural Modulus, 1.3 mm/min, 50 mm span	D 790	MPa.	9910
Izod Impact, notched @ 23°C	D 256	ft-lb/in.	1.47
Conductivity			
Thermal Conductivity (through plane)	Internal Method	W/m-K	0.5 – 1.0
Thermal Conductivity (in plane)	Internal Method	W/m-K	5 – 8

*All properties are measured after 48 hours of conditioning at 23°C and 50% relative humidity. All samples are prepared according to ASTM standards. Variations within normal tolerances are possible for various types of colors and functional properties like UV resistance.

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Processing Guidelines

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Parameter	Unit	Typical Value
Drying Temperature	°C	120 – 140
Drying Time	hours	2 – 4
Maximum Moisture Content	%	0.02
Mold Temperature	°C	125 – 150
Nozzle Temperature	°C	300 – 320
Front – Zone 3 Temperature	°C	290 – 310
Middle – Zone 2 Temperature	°C	280 – 300
Rear – Zone 1 Temperature	°C	270 – 290
Melt Temperature	°C	290 – 320
Back Pressure	psi.	30 – 60
Screw Speed	rpm	80 – 120

Safety Precautions: Ovation Polymer's thermoplastic blends and alloys, as supplied should present no toxicity problems. Because these materials can be reinforced into high modulus grades, grinding will generate dust and small levels of glass and filler fines. Consequently, direct contact with the skin and inhalation of grind dust should be avoided. As with all thermoplastics, proper ventilation around molding machine/extruder is recommended. In no case should material temperature be allowed to exceed maximums listed in the process parameter guide chart, as degradation can cause harmful vapors to be released. Consult Ovation Polymer's MSDS for detailed safety information on specific products and grades.

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