



OVATION POLYMERS

Ovation Polymer Technology & Engineered Materials

Product Data Sheet

Nemcon H PC DP184

Thermally conductive Polycarbonate

Properties*	Standard	Unit	Typical Value
Physical			
Specific Gravity	D 792	g/cm ³	1.624
Mechanical			
Tensile Stress @ brk, 50 mm/min	D 638	MPa.	55
Tensile Strain @ brk, 50 mm/min	D 638	%	2
Tensile Modulus, 50 mm/min	D 638	MPa.	7810
Flexural Stress @ brk, 1.3 mm/min, 50 mm span	D 790	MPa.	70
Flexural Modulus, 1.3 mm/min, 50 mm span	D 790	MPa.	6750
Izod Impact, notched @ 23°C	D 256	ft-lb/in.	0.7
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	80 – 100
Drying Time	hours	2 – 4
Maximum Moisture Content	%	0.05
Mold Temperature	°C	90 – 125
Nozzle Temperature	°C	270 – 290
Front – Zone 3 Temperature	°C	270 – 290
Middle – Zone 2 Temperature	°C	260 – 280
Rear – Zone 1 Temperature	°C	250 – 260
Melt Temperature	°C	265 – 280
Back Pressure	psi.	40 – 80
Screw Speed	rpm	60 – 120

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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.