

Product Data Sheet

Nemcon™ H ABS DP116P

Nemcon H-series products are designed for use in high performance electronic assemblies where heat removal is critical to system performance. Nemcon H ABS DP116P is a thermally conductive, electrically insulating ABS compound, combining thermal conductivity with good HDT and processability.

Typical Applications

- Encapsulations/housings for power components.
- Encapsulation of passive components.
- IC thermal management components, such as heat sinks, heat spreaders, or heat pipes.
- LED lighting assemblies.

Properties*	Standard	Unit	Typical Value
Physical			
Specific Gravity	D 792	-	1.66
Mechanical			
Tensile Stress @ brk, 50 mm/min	D 638	MPa.	32
Tensile Strain @ brk, 50 mm/min	D 638	%	1.7
Tensile Modulus, 50 mm/min	D 638	MPa.	3572
Flexural Stress @ brk, 1.3 mm/min, 50 mm span	D 790	MPa.	52
Flexural Modulus, 1.3 mm/min, 50 mm span	D 790	MPa.	3188
Izod Impact, notched @ 23°C	D 256	ft-lb/in.	0.40
Thermal			
HDT @ 264 psi, 3.2 mm, unannealed	D 648	°C	81
Conductivity			
Thermal Conductivity	E 1461	W/mK	0.70
Electrical - Surface Resistivity	D 257	Ohms/sq.	8.0 E + 12

*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

NEMCONTM H ABS DP116P

Parameter	Unit	Typical Value
Drying Temperature	°C	70 – 90
Drying Time	hours	4 - 6
Maximum Moisture Content	%	0.02
Mold Temperature	°C	40 - 80
Nozzle Temperature	°C	220 – 270
Front – Zone 3 Temperature	°C	220 – 265
Middle – Zone 2 Temperature	°C	220 – 260
Rear – Zone 1 Temperature	°C	220 – 255
Melt Temperature	°C	220 – 275
Back Pressure	psi.	30 – 80
Screw Speed	rpm	70 – 100

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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.