
Product Data Sheet

Nemcon™ H PC DP120/X3 BK

Nemcon™ H-series products are designed for use in high performance electronic assemblies where heat removal is critical to system performance. Nemcon™ H PC DP105/X3 BK is a black colored, thermally conductive polycarbonate compound, combining excellent thermal conductivity with high HDT and good processability.

Typical Applications

- Housings for power components.
- Encapsulation/housings for bobbins, actuators, and coils.
- 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	-	1.48
Mechanical			
Tensile Stress @ brk, 50 mm/min	D 638	MPa.	57
Tensile Modulus, 50 mm/min	D 638	MPa.	6700
Flexural Stress @ brk, 1.3 mm/min, 50 mm span	D 790	MPa.	80
Flexural Modulus, 1.3 mm/min, 50 mm span	D 790	MPa.	8050
Izod Impact, notched @ 23°C	D 256	ft-lb/in.	0.5
Thermal			
HDT @ 264 psi, 3.2 mm, unannealed	D 648	°C	132
Conductivity			
Thermal Conductivity – In-Plane	E 1461	W/mK	10.1
Thermal Conductivity – Thru-Plane	E 1461	W/mK	3.25
Electrical - Surface Resistivity	D 257	Ohms/sq.	8.0E+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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