

## Product Data Sheet

### Nemcon™ H ES DP110/X3

Nemcon™ H-series products are designed for use in high performance electronic assemblies where heat removal is critical to system performance. Nemcon™ H ES DP110/X3 is a thermally conductive polycarbonate alloy, combining good thermal conductivity with improved HDT and processability relative to conventional polycarbonate compounds.

#### 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 |
|---|----------|-----------|---------------|
| <b>Physical</b>                               |          |           |               |
| Specific Gravity                              | D 792    | -         | 1.49          |
| <b>Mechanical</b>                             |          |           |               |
| Tensile Stress @ brk, 50 mm/min               | D 638    | MPa.      | 47            |
| Tensile Strain @ brk, 50 mm/min               | D 638    | %         | 1.7           |
| Tensile Modulus, 50 mm/min                    | D 638    | MPa.      | 3175          |
| Flexural Stress @ brk, 1.3 mm/min, 50 mm span | D 790    | MPa.      | 75            |
| Flexural Modulus, 1.3 mm/min, 50 mm span      | D 790    | MPa.      | 7350          |
| Izod Impact, notched @ 23°C                   | D 256    | ft-lb/in. | 0.35          |
| <b>Thermal</b>                                |          |           |               |
| HDT @ 264 psi, 3.2 mm, unannealed             | D 648    | °C        | 113           |
| <b>Conductivity</b>                           |          |           |               |
| Thermal Conductivity                          | E 1461   | W/mK      | 3.5           |
| 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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