



## LNP™ THERMOCOMP™ Compound DF008ER

### Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound DF-1008 EM MR

Product reorder name: DF008ER

LNP THERMOCOMP™ DF008ER is a compound based on Polycarbonate resin containing 40% Glass Fiber. Added features include: Easy Molding, Mold Release.

| TYPICAL PROPERTIES <sup>1</sup>         | TYPICAL VALUE | Unit                | Standard    |
|-----------------------------------------|---------------|---------------------|-------------|
| <b>MECHANICAL</b>                       |               |                     |             |
| Tensile Stress, break                   | 1390          | kgf/cm <sup>2</sup> | ASTM D 638  |
| Tensile Strain, break                   | 2.3           | %                   | ASTM D 638  |
| Tensile Modulus, 50 mm/min              | 120500        | kgf/cm <sup>2</sup> | ASTM D 638  |
| Flexural Stress                         | 2080          | kgf/cm <sup>2</sup> | ASTM D 790  |
| Flexural Modulus                        | 114800        | kgf/cm <sup>2</sup> | ASTM D 790  |
| Tensile Stress, break                   | 136           | MPa                 | ISO 527     |
| Tensile Strain, break                   | 2.2           | %                   | ISO 527     |
| Tensile Modulus, 1 mm/min               | 11170         | MPa                 | ISO 527     |
| Flexural Stress                         | 203           | MPa                 | ISO 178     |
| Flexural Modulus                        | 10970         | MPa                 | ISO 178     |
| <b>IMPACT</b>                           |               |                     |             |
| Izod Impact, unnotched, 23°C            | 82            | cm-kgf/cm           | ASTM D 4812 |
| Izod Impact, notched, 23°C              | 22            | cm-kgf/cm           | ASTM D 256  |
| Instrumented Impact Energy @ peak, 23°C | 138           | cm-kgf              | ASTM D 3763 |
| Multiaxial Impact                       | 26            | cm-kgf              | ISO 6603    |
| Izod Impact, unnotched 80*10*4 +23°C    | 53            | kJ/m <sup>2</sup>   | ISO 180/1U  |
| Izod Impact, notched 80*10*4 +23°C      | 11            | kJ/m <sup>2</sup>   | ISO 180/1A  |
| <b>THERMAL</b>                          |               |                     |             |
| HDT, 1.82 MPa, 3.2mm, unannealed        | 136           | °C                  | ASTM D 648  |
| CTE, -40°C to 40°C, flow                | 3.25E-05      | 1/°C                | ASTM E 831  |
| CTE, -40°C to 40°C, xflow               | 3.5E-05       | 1/°C                | ASTM E 831  |
| CTE, -40°C to 40°C, flow                | 3.26E-05      | 1/°C                | ISO 11359-2 |
| CTE, -40°C to 40°C, xflow               | 3.51E-05      | 1/°C                | ISO 11359-2 |



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| TYPICAL PROPERTIES <sup>1</sup>       | TYPICAL VALUE | Unit | Standard   |
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| <b>THERMAL</b>                        |               |      |            |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm | 137           | °C   | ISO 75/Af  |
| <b>PHYSICAL</b>                       |               |      |            |
| Moisture Absorption, 50% RH, 24 hrs   | 0.93          | %    | ASTM D 570 |
| Mold Shrinkage, flow, 24 hrs (5)      | 0.2           | %    | ASTM D 955 |
| Mold Shrinkage, xflow, 24 hrs (5)     | 0.4           | %    | ASTM D 955 |
| Mold Shrinkage, flow, 24 hrs (5)      | 0.16          | %    | ISO 294    |
| Mold Shrinkage, xflow, 24 hrs (5)     | 0.35          | %    | ISO 294    |
| Moisture Absorption (23°C / 50% RH)   | 0.12          | %    | ISO 62     |



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| PROCESSING PARAMETERS       | TYPICAL VALUE | Unit |
|-----------------------------|---------------|------|
| <b>Injection Molding</b>    |               |      |
| Drying Temperature          | 120           | °C   |
| Drying Time                 | 4             | hrs  |
| Maximum Moisture Content    | 0.02          | %    |
| Melt Temperature            | 305 - 325     | °C   |
| Front - Zone 3 Temperature  | 320 - 330     | °C   |
| Middle - Zone 2 Temperature | 310 - 320     | °C   |
| Rear - Zone 1 Temperature   | 295 - 305     | °C   |
| Mold Temperature            | 80 - 110      | °C   |
| Back Pressure               | 0.2 - 0.3     | MPa  |
| Screw Speed                 | 30 - 60       | rpm  |