



## LNP™ THERMOCOMP™ Compound RF0057E

### Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound RF-1005 Z270

Product reorder name: RF0057E

LNP™ THERMOCOMP™ RF0057E is a compound based on Nylon 66 resin containing Glass Fiber, Flame Retardant. Added features of this material include:  
Non-Brominated & Non-Chlorinated Flame Retardant.

| TYPICAL PROPERTIES <sup>1</sup>             | TYPICAL VALUE | Unit              | Standard       |
|---------------------------------------------|---------------|-------------------|----------------|
| <b>MECHANICAL</b>                           |               |                   |                |
| Tensile Stress, break, 5 mm/min             | 130           | MPa               | ISO 527        |
| Tensile Strain, break, 5 mm/min             | 2.4           | %                 | ISO 527        |
| Tensile Modulus, 1 mm/min                   | 9400          | MPa               | ISO 527        |
| Flexural Stress, yield, 2 mm/min            | 190           | MPa               | ISO 178        |
| Flexural Modulus, 2 mm/min                  | 8000          | MPa               | ISO 178        |
| <b>IMPACT</b>                               |               |                   |                |
| Izod Impact, unnotched 80*10*4 +23°C        | 45            | kJ/m <sup>2</sup> | ISO 180/1U     |
| Izod Impact, notched 80*10*4 +23°C          | 7             | kJ/m <sup>2</sup> | ISO 180/1A     |
| <b>THERMAL</b>                              |               |                   |                |
| Ball Pressure Test, approximate maximum     | 240           | °C                | IEC 60695-10-2 |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm       | 240           | °C                | ISO 75/Af      |
| Relative Temp Index, Elec                   | 140           | °C                | UL 746B        |
| Relative Temp Index, Mech w/impact          | 110           | °C                | UL 746B        |
| Relative Temp Index, Mech w/o impact        | 140           | °C                | UL 746B        |
| <b>PHYSICAL</b>                             |               |                   |                |
| Mold Shrinkage, flow, 24 hrs (5)            | 0.2 - 0.4     | %                 | ISO 294        |
| Density                                     | 1.39          | g/cm <sup>3</sup> | ISO 1183       |
| <b>ELECTRICAL</b>                           |               |                   |                |
| Volume Resistivity                          | 1.E+12        | Ohm-cm            | ASTM D 257     |
| Dielectric Strength, in air, 1.6 mm         | 16            | kV/mm             | ASTM D 149     |
| Hot Wire Ignition {PLC}                     | 0             | PLC Code          | UL 746A        |
| High Ampere Arc Ign, surface {PLC}          | 0             | PLC Code          | UL 746A        |
| Comparative Tracking Index                  | 600           | V                 | IEC 60112      |
| <b>FLAME CHARACTERISTICS</b>                |               |                   |                |
| UL Recognized, 94V-0 Flame Class Rating (3) | 0.4           | mm                | UL 94          |
| UL Recognized, 94-5VA Rating (3)            | 1.6           | mm                | UL 94          |



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| <b>FLAME CHARACTERISTICS</b>                  |               |      |                |
| Glow Wire Flammability Index 960°C, passes at | 0.4           | mm   | IEC 60695-2-12 |
| Glow Wire Ignitability Temperature, 0.4 mm    | 775           | °C   | IEC 60695-2-13 |
| Glow Wire Ignitability Temperature, 1.0 mm    | 775           | °C   | IEC 60695-2-13 |
| Glow Wire Ignitability Temperature, 1.5 mm    | 775           | °C   | IEC 60695-2-13 |
| Glow Wire Ignitability Temperature, 3.0 mm    | 825           | °C   | IEC 60695-2-13 |



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| PROCESSING PARAMETERS       | TYPICAL VALUE | Unit |
|-----------------------------|---------------|------|
| <b>Injection Molding</b>    |               |      |
| Drying Temperature          | 80            | °C   |
| Drying Time                 | 4             | hrs  |
| Maximum Moisture Content    | 0.15 - 0.25   | %    |
| Melt Temperature            | 265 - 275     | °C   |
| Front - Zone 3 Temperature  | 260 - 270     | °C   |
| Middle - Zone 2 Temperature | 255 - 265     | °C   |
| Rear - Zone 1 Temperature   | 250 - 260     | °C   |
| Mold Temperature            | 60 - 100      | °C   |
| Back Pressure               | 0.2 - 0.3     | MPa  |
| Screw Speed                 | 30 - 60       | rpm  |