



## LNP™ THERMOCOMP™ Compound RC008

### Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound RC-1008

Product reorder name: RC008

LNP THERMOCOMP™ RC008 is a compound based on Nylon 66 resin containing 40% Carbon Fiber. Added features of this material include: Electrically Conductive.

| TYPICAL PROPERTIES <sup>1</sup>         | TYPICAL VALUE | Unit                                               | Standard             |
|-----------------------------------------|---------------|----------------------------------------------------|----------------------|
| <b>MECHANICAL</b>                       |               |                                                    |                      |
| Tensile Stress, break                   | 2720          | kgf/cm <sup>2</sup>                                | ASTM D 638           |
| Tensile Strain, break                   | 1.9           | %                                                  | ASTM D 638           |
| Tensile Modulus, 50 mm/min              | 313000        | kgf/cm <sup>2</sup>                                | ASTM D 638           |
| Flexural Stress                         | 4480          | kgf/cm <sup>2</sup>                                | ASTM D 790           |
| Flexural Modulus                        | 236200        | kgf/cm <sup>2</sup>                                | ASTM D 790           |
| Tensile Stress, break                   | 293           | MPa                                                | ISO 527              |
| Tensile Strain, break                   | 1.7           | %                                                  | ISO 527              |
| Tensile Modulus, 1 mm/min               | 29500         | MPa                                                | ISO 527              |
| Flexural Stress                         | 457           | MPa                                                | ISO 178              |
| Flexural Modulus                        | 28400         | MPa                                                | ISO 178              |
| <b>IMPACT</b>                           |               |                                                    |                      |
| Izod Impact, unnotched, 23°C            | 113           | cm-kgf/cm                                          | ASTM D 4812          |
| Izod Impact, notched, 23°C              | 10            | cm-kgf/cm                                          | ASTM D 256           |
| Instrumented Impact Energy @ peak, 23°C | 97            | cm-kgf                                             | ASTM D 3763          |
| Izod Impact, unnotched 80*10*4 +23°C    | 74            | 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        | 253           | °C                                                 | ASTM D 648           |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm   | >240          | °C                                                 | ISO 75/Af            |
| <b>PHYSICAL</b>                         |               |                                                    |                      |
| Mold Shrinkage, flow, 24 hrs (5)        | 0.2 - 0.4     | %                                                  | ASTM D 955           |
| Mold Shrinkage, xflow, 24 hrs (5)       | 0.4 - 0.6     | %                                                  | ASTM D 955           |
| Wear Factor Washer                      | 14            | 10 <sup>-4</sup> -10 in <sup>3</sup> -min/ft-lb-hr | ASTM D 3702 Modified |
| Dynamic COF                             | 0.41          | -                                                  | ASTM D 3702 Modified |



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|----------------------------------------------|---------------|------|----------------------|
| <b>PHYSICAL</b>                              |               |      |                      |
| Static COF                                   | 0.3           | -    | ASTM D 3702 Modified |
| <b>FLAME CHARACTERISTICS</b>                 |               |      |                      |
| UL Compliant, 94HB Flame Class Rating (3)(4) | 1.5           | mm   | UL 94 by SABIC-IP    |



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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            | 280 - 305     | °C   |
| Front - Zone 3 Temperature  | 295 - 305     | °C   |
| Middle - Zone 2 Temperature | 280 - 295     | °C   |
| Rear - Zone 1 Temperature   | 265 - 275     | °C   |
| Mold Temperature            | 95 - 110      | °C   |
| Back Pressure               | 0.2 - 0.3     | MPa  |
| Screw Speed                 | 30 - 60       | rpm  |