



## LNP™ THERMOCOMP™ Compound RF005SXS

### Americas: COMMERCIAL

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

Product reorder name: RF005SXS

LNP THERMOCOMP™ RF005SXS is a compound based on Nylon 66 resin containing 25% Glass Fiber. Added features of this material include: Heat Stabilized.

| TYPICAL PROPERTIES <sup>1</sup>         | TYPICAL VALUE | Unit                | Standard    |
|-----------------------------------------|---------------|---------------------|-------------|
| <b>MECHANICAL</b>                       |               |                     |             |
| Tensile Stress, break                   | 1350          | kgf/cm <sup>2</sup> | ASTM D 638  |
| Tensile Strain, break                   | 1.9           | %                   | ASTM D 638  |
| Tensile Modulus, 50 mm/min              | 92800         | kgf/cm <sup>2</sup> | ASTM D 638  |
| Flexural Stress                         | 2010          | kgf/cm <sup>2</sup> | ASTM D 790  |
| Flexural Modulus                        | 73800         | kgf/cm <sup>2</sup> | ASTM D 790  |
| Tensile Stress, break                   | 139           | MPa                 | ISO 527     |
| Tensile Strain, break                   | 2             | %                   | ISO 527     |
| Tensile Modulus, 1 mm/min               | 8600          | MPa                 | ISO 527     |
| Flexural Stress                         | 205           | MPa                 | ISO 178     |
| Flexural Modulus                        | 8300          | MPa                 | ISO 178     |
| <b>IMPACT</b>                           |               |                     |             |
| Izod Impact, unnotched, 23°C            | 49            | cm-kgf/cm           | ASTM D 4812 |
| Izod Impact, notched, 23°C              | 7             | cm-kgf/cm           | ASTM D 256  |
| Instrumented Impact Energy @ peak, 23°C | 66            | cm-kgf              | ASTM D 3763 |
| Multiaxial Impact                       | 16            | cm-kgf              | ISO 6603    |
| Izod Impact, unnotched 80*10*4 +23°C    | 33            | kJ/m <sup>2</sup>   | ISO 180/1U  |
| Izod Impact, notched 80*10*4 +23°C      | 6             | kJ/m <sup>2</sup>   | ISO 180/1A  |
| <b>THERMAL</b>                          |               |                     |             |
| HDT, 0.45 MPa, 3.2 mm, unannealed       | 258           | °C                  | ASTM D 648  |
| HDT, 1.82 MPa, 3.2mm, unannealed        | 245           | °C                  | ASTM D 648  |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm   | 224           | °C                  | ISO 75/Af   |
| <b>PHYSICAL</b>                         |               |                     |             |
| Density                                 | 1.346         | g/cm <sup>3</sup>   | ASTM D 792  |
| Mold Shrinkage, flow, 24 hrs (5)        | 0.3           | %                   | ASTM D 955  |



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| TYPICAL PROPERTIES <sup>1</sup>              | TYPICAL VALUE | Unit              | Standard          |
|----------------------------------------------|---------------|-------------------|-------------------|
| <b>PHYSICAL</b>                              |               |                   |                   |
| Mold Shrinkage, xflow, 24 hrs (5)            | 1.4           | %                 | ASTM D 955        |
| Mold Shrinkage, flow, 24 hrs (5)             | 0.34          | %                 | ISO 294           |
| Mold Shrinkage, xflow, 24 hrs (5)            | 1.4           | %                 | ISO 294           |
| Density                                      | 1.34          | g/cm <sup>3</sup> | ISO 1183          |
| <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  |