

# LNP\* Thermocomp\* RF00A

Polyamide 66

SABIC Innovative Plastics



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## Technical Data

### Product Description

LNP THERMOCOMP\* RF00A is a compound based on Nylon 66 resin containing Glass Fiber. Added features of this material include: Heat Stabilized, Easy Molding

Also known as: LNP\* Thermocomp\* Compound RF-100-10 EM HS

Product reorder name: RF00A

### General

|                             |                                                                                   |
|-----------------------------|-----------------------------------------------------------------------------------|
| Material Status             | • Commercial: Active                                                              |
| Literature <sup>1</sup>     | • <a href="#">Technical Datasheet</a>                                             |
| UL Yellow Card <sup>2</sup> | • <a href="#">E45195-235921</a>                                                   |
| Search for UL Yellow Card   | • <a href="#">SABIC Innovative Plastics</a><br>• <a href="#">LNP* Thermocomp*</a> |
| Availability                | • North America                                                                   |
| Filler / Reinforcement      | • Glass Fiber Reinforcement                                                       |
| Additive                    | • Heat Stabilizer                                                                 |
| Features                    | • Good Moldability • Heat Stabilized                                              |
| Processing Method           | • Injection Molding                                                               |

| Physical                  | Nominal Value Unit     | Test Method            |
|---------------------------|------------------------|------------------------|
| Density                   | 1.57 g/cm <sup>3</sup> | ISO 1183<br>ASTM D792  |
| Molding Shrinkage         |                        |                        |
| Flow: 24 hr               | 0.30 %                 | ASTM D955              |
| Across Flow: 24 hr        | 1.2 %                  | ASTM D955<br>ISO 294-4 |
| Flow: 24 hr               | 0.34 %                 | ISO 294-4              |
| Water Absorption          |                        |                        |
| 24 hr, 50% RH             | 0.40 %                 | ASTM D570              |
| Equilibrium, 23°C, 50% RH | 0.74 %                 | ISO 62                 |

| Mechanical                 | Nominal Value Unit | Test Method            |
|----------------------------|--------------------|------------------------|
| Tensile Modulus            |                    |                        |
| -- <sup>4</sup>            | 17700 MPa          | ASTM D638              |
| --                         | 14000 MPa          | ISO 527-2/1            |
| Tensile Strength           |                    |                        |
| Break                      | 198 MPa            | ASTM D638              |
| Break                      | 194 MPa            | ISO 527-2              |
| Tensile Elongation (Break) | 2.4 %              | ASTM D638<br>ISO 527-2 |
| Flexural Modulus           |                    |                        |
| --                         | 12500 MPa          | ASTM D790              |
| --                         | 14500 MPa          | ISO 178                |
| Flexural Strength          |                    |                        |
| --                         | 312 MPa            | ASTM D790              |
| --                         | 300 MPa            | ISO 178                |

| Impact                | Nominal Value Unit   | Test Method |
|-----------------------|----------------------|-------------|
| Notched Izod Impact   |                      |             |
| 23°C                  | 150 J/m              | ASTM D256   |
| 23°C <sup>5</sup>     | 14 kJ/m <sup>2</sup> | ISO 180/1A  |
| Unnotched Izod Impact |                      |             |
| 23°C                  | 1600 J/m             | ASTM D4812  |
| 23°C <sup>5</sup>     | 66 kJ/m <sup>2</sup> | ISO 180/1U  |

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| Impact                                         | Nominal Value Unit | Test Method |
|------------------------------------------------|--------------------|-------------|
| Instrumented Dart Impact                       |                    |             |
| 23°C, Energy at Peak Load                      | 12.2 J             | ASTM D3763  |
| --                                             | 3.90 J             | ISO 6603-2  |
| Thermal                                        | Nominal Value Unit | Test Method |
| Deflection Temperature Under Load              |                    |             |
| 1.8 MPa, Unannealed, 3.20 mm                   | 253 °C             | ASTM D648   |
| 1.8 MPa, Unannealed, 64.0 mm Span <sup>6</sup> | > 240 °C           | ISO 75-2/Af |
| CLTE                                           |                    |             |
| Flow: -40 to 40°C                              | 0.000027 cm/cm/°C  | ASTM E831   |
| Flow: -40 to 40°C                              | 0.000028 cm/cm/°C  | ISO 11359-2 |
| Transverse: -40 to 40°C                        | 0.000043 cm/cm/°C  | ASTM E831   |
| Transverse: -40 to 40°C                        | 0.000044 cm/cm/°C  | ISO 11359-2 |
| Flammability                                   | Nominal Value Unit | Test Method |
| Flame Rating (1.50 mm, Testing by SABIC)       | HB                 | UL 94       |
| Injection                                      | Nominal Value Unit |             |
| Drying Temperature                             | 82.2 °C            |             |
| Drying Time                                    | 4.0 hr             |             |
| Suggested Max Moisture                         | 0.15 to 0.25 %     |             |
| Rear Temperature                               | 266 to 277 °C      |             |
| Middle Temperature                             | 282 to 293 °C      |             |
| Front Temperature                              | 293 to 304 °C      |             |
| Processing (Melt) Temp                         | 282 to 304 °C      |             |
| Mold Temperature                               | 93.3 to 110 °C     |             |
| Back Pressure                                  | 0.172 to 0.344 MPa |             |
| Screw Speed                                    | 30 to 60 rpm       |             |

## Notes

<sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

<sup>2</sup> A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL IDES continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

<sup>3</sup> Typical properties: these are not to be construed as specifications.

<sup>4</sup> 50 mm/min

<sup>5</sup> 80\*10\*4

<sup>6</sup> 80\*10\*4 mm

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## Where to Buy

### Supplier

#### **SABIC Innovative Plastics**

Pittsfield, MA USA

**Telephone:** 800-845-0600

**Web:** <http://www.sabic-ip.com/>

### Distributor

#### **Nexeo Solutions**

**Telephone:** 800-531-7106

**Web:** <http://www.nexeosolutions.com/>

**Availability:** North America



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