

# LNP\* Thermotuf\* RF006I

Polyamide 66

SABIC Innovative Plastics



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## Technical Data

### Product Description

LNP\* Thermotuf\* RF006I is a compound based on Nylon 66 resin containing Glass Fiber. Added features of this material include: High Impact.

Also known as: LNP\* Thermotuf\* Compound RF-1006 HI  
Product reorder name: RF006I

### General

|                           |                                                                                  |
|---------------------------|----------------------------------------------------------------------------------|
| Material Status           | • Commercial: Active                                                             |
| Literature <sup>1</sup>   | • <a href="#">Technical Datasheet</a>                                            |
| Search for UL Yellow Card | • <a href="#">SABIC Innovative Plastics</a><br>• <a href="#">LNP* Thermotuf*</a> |
| Availability              | • North America                                                                  |
| Filler / Reinforcement    | • Glass Fiber Reinforcement                                                      |
| Features                  | • High Impact Resistance                                                         |
| Processing Method         | • Injection Molding                                                              |

| Physical                         | Nominal Value Unit     | Test Method            |
|----------------------------------|------------------------|------------------------|
| Specific Gravity                 | 1.38 g/cm <sup>3</sup> | ASTM D792<br>ISO 1183  |
| Molding Shrinkage                |                        |                        |
| Flow: 24 hr                      | 0.30 %                 | ASTM D955              |
| Across Flow: 24 hr               | 1.1 %                  | ASTM D955<br>ISO 294-4 |
| Flow: 24 hr                      | 0.27 %                 | ISO 294-4              |
| Water Absorption (24 hr, 50% RH) | 0.64 %                 | ASTM D570              |

| Mechanical         | Nominal Value Unit | Test Method |
|--------------------|--------------------|-------------|
| Tensile Modulus    |                    |             |
| -- <sup>3</sup>    | 10400 MPa          | ASTM D638   |
| --                 | 10800 MPa          | ISO 527-2/1 |
| Tensile Strength   |                    |             |
| Break              | 161 MPa            | ASTM D638   |
| Break              | 179 MPa            | ISO 527-2   |
| Tensile Elongation |                    |             |
| Break              | 3.2 %              | ASTM D638   |
| Break              | 2.9 %              | ISO 527-2   |
| Flexural Modulus   |                    |             |
| --                 | 8690 MPa           | ASTM D790   |
| --                 | 9480 MPa           | ISO 178     |
| Flexural Strength  |                    |             |
| --                 | 248 MPa            | ASTM D790   |
| --                 | 267 MPa            | ISO 178     |

| Impact                    | Nominal Value Unit   | Test Method |
|---------------------------|----------------------|-------------|
| Notched Izod Impact       |                      |             |
| 23°C                      | 120 J/m              | ASTM D256   |
| 23°C <sup>4</sup>         | 15 kJ/m <sup>2</sup> | ISO 180/1A  |
| Unnotched Izod Impact     |                      |             |
| 23°C                      | 1100 J/m             | ASTM D4812  |
| 23°C <sup>4</sup>         | 76 kJ/m <sup>2</sup> | ISO 180/1U  |
| Instrumented Dart Impact  |                      |             |
| 23°C, Energy at Peak Load | 17.9 J               | ASTM D3763  |
| --                        | 5.66 J               | ISO 6603-2  |

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| Thermal                           | Nominal Value Unit | Test Method              |
|-----------------------------------|--------------------|--------------------------|
| Deflection Temperature Under Load |                    | ASTM D648                |
| 0.45 MPa, Unannealed, 3.20 mm     | 259 °C             |                          |
| 1.8 MPa, Unannealed, 3.20 mm      | 121 °C             |                          |
| CLTE                              |                    | ASTM E831<br>ISO 11359-2 |
| Flow: -40 to 40°C                 | 0.000028 cm/cm/°C  |                          |
| Transverse: -40 to 40°C           | 0.000061 cm/cm/°C  |                          |

| 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> Typical properties: these are not to be construed as specifications.

<sup>3</sup> 50 mm/min

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

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Polyamide 66

**SABIC Innovative Plastics**

## 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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