

# LNP™ THERMOCOMP™ RX05494 compound

Polyamide 66

SABIC Innovative Plastics

## Message:

LNP\* THERMOCOMP\* RX05494 is a compound based on Nylon 6/6 resin containing 40% Glass Fiber. Added features of this material include: Heat Stabilized.

Also known as: LNP\* THERMOCOMP\* Compound RF-1008 HS

Product reorder name: RX05494

| General Information       |                                  |                   |             |
|---------------------------|----------------------------------|-------------------|-------------|
| UL YellowCard             | E121562-101281587                |                   |             |
| Filler / Reinforcement    | Glass Fiber,40% Filler by Weight |                   |             |
| Additive                  | Heat Stabilizer                  |                   |             |
| Features                  | Heat Stabilized                  |                   |             |
| Processing Method         | Injection Molding                |                   |             |
| Physical                  | Nominal Value                    | Unit              | Test Method |
| Specific Gravity          |                                  |                   |             |
| --                        | 1.50                             | g/cm <sup>3</sup> | ASTM D792   |
| --                        | 1.48                             | g/cm <sup>3</sup> | ISO 1183    |
| Molding Shrinkage         |                                  |                   | ASTM D955   |
| Flow : 24 hr              | 0.20 to 0.40                     | %                 |             |
| Across Flow : 24 hr       | 1.0 to 3.0                       | %                 |             |
| Water Absorption          |                                  |                   |             |
| 24 hr, 50% RH             | 0.66                             | %                 | ASTM D570   |
| Equilibrium, 23°C, 50% RH | 1.0                              | %                 | ISO 62      |
| Mechanical                | Nominal Value                    | Unit              | Test Method |
| Tensile Modulus           |                                  |                   |             |
| -- <sup>1</sup>           | 13900                            | MPa               | ASTM D638   |
| --                        | 14100                            | MPa               | ISO 527-2/1 |
| Tensile Strength          |                                  |                   |             |
| Yield <sup>2</sup>        | 230                              | MPa               | ASTM D638   |
| Yield                     | 232                              | MPa               | ISO 527-2/5 |
| Break <sup>3</sup>        | 210                              | MPa               | ASTM D638   |
| Break                     | 232                              | MPa               | ISO 527-2/5 |
| Tensile Elongation        |                                  |                   |             |
| Yield <sup>4</sup>        | 2.8                              | %                 | ASTM D638   |
| Yield                     | 2.9                              | %                 | ISO 527-2/5 |
| Break <sup>5</sup>        | 2.9                              | %                 | ASTM D638   |
| Break                     | 2.9                              | %                 | ISO 527-2/5 |
| Flexural Modulus          |                                  |                   |             |
| 50.0 mm Span <sup>6</sup> | 12400                            | MPa               | ASTM D790   |

|                                                  |                    |                   |             |
|--------------------------------------------------|--------------------|-------------------|-------------|
| -- <sup>7</sup>                                  | 11200              | MPa               | ISO 178     |
| Flexural Stress                                  |                    |                   |             |
| --                                               | 229                | MPa               | ISO 178     |
| Yield, 50.0 mm Span <sup>8</sup>                 | 338                | MPa               | ASTM D790   |
| Break, 50.0 mm Span <sup>9</sup>                 | 337                | MPa               | ASTM D790   |
| Impact                                           | Nominal Value      | Unit              | Test Method |
| Notched Izod Impact                              |                    |                   |             |
| 23°C                                             | 170                | J/m               | ASTM D256   |
| 23°C <sup>10</sup>                               | 16                 | kJ/m <sup>2</sup> | ISO 180/1A  |
| Unnotched Izod Impact                            |                    |                   |             |
| 23°C                                             | 1300               | J/m               | ASTM D4812  |
| 23°C <sup>11</sup>                               | 86                 | kJ/m <sup>2</sup> | ISO 180/1U  |
| Instrumented Dart Impact                         |                    |                   |             |
| 23°C, Total Energy                               | 18.0               | J                 | ASTM D3763  |
| --                                               | 4.00               | J                 | ISO 6603-2  |
| Thermal                                          | Nominal Value      | Unit              | Test Method |
| Deflection Temperature Under Load                |                    |                   |             |
| 0.45 MPa, Unannealed, 3.20 mm                    | 260                | °C                | ASTM D648   |
| 0.45 MPa, Unannealed, 64.0 mm Span <sup>12</sup> | 259                | °C                | ISO 75-2/Bf |
| 1.8 MPa, Unannealed, 3.20 mm                     | 253                | °C                | ASTM D648   |
| 1.8 MPa, Unannealed, 64.0 mm Span <sup>13</sup>  | 244                | °C                | ISO 75-2/Af |
| CLTE                                             |                    |                   | ASTM D696   |
| Flow : -30 to 30°C                               | 3.2E-5             | cm/cm/°C          |             |
| Transverse : -30 to 30°C                         | 6.2E-5             | 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               |             |
| NOTE                                             |                    |                   |             |
| 1.                                               | 5.0 mm/min         |                   |             |
| 2.                                               | Type I, 5.0 mm/min |                   |             |
| 3.                                               | Type I, 5.0 mm/min |                   |             |
| 4.                                               | Type I, 5.0 mm/min |                   |             |
| 5.                                               | Type I, 5.0 mm/min |                   |             |
| 6.                                               | 1.3 mm/min         |                   |             |

|     |            |
|-----|------------|
| 7.  | 2.0 mm/min |
| 8.  | 1.3 mm/min |
| 9.  | 1.3 mm/min |
| 10. | 80*10*4    |
| 11. | 80*10*4    |
| 12. | 80*10*4 mm |
| 13. | 80*10*4 mm |

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