

# LNP™ THERMOCOMP™ DF0046P compound

Polycarbonate  
SABIC Innovative Plastics

Message:

LNP THERMOCOMP DF0046P is a compound based on Polycarbonate resin containing Glass Fiber, Flame Retardant. Added features of this material include: Exceptional Processing, Flame Retardant, Non-Brominated & Non-Chlorinated Flame Retardant.  
Also known as: LNP\* THERMOCOMP\* Compound DF-1004 EP FR ECO  
Product reorder name: DF0046P

| General Information       |                                 |                   |                     |
|---------------------------|---------------------------------|-------------------|---------------------|
| UL YellowCard             | E207780-101284060               |                   |                     |
| Filler / Reinforcement    | Glass fiber reinforced material |                   |                     |
| Features                  | Chlorine Free                   |                   |                     |
|                           | Workability, good               |                   |                     |
|                           | Bromine-free                    |                   |                     |
|                           | Flame retardancy                |                   |                     |
| Physical                  | Nominal Value                   | Unit              | Test Method         |
| Specific Gravity          | 1.37                            | g/cm <sup>3</sup> | ASTM D792, ISO 1183 |
| Molding Shrinkage         |                                 |                   | ASTM D955           |
| Flow: 24 hours            | 0.20 - 0.40                     | %                 | ASTM D955           |
| Transverse flow: 24 hours | 0.30 - 0.50                     | %                 | ASTM D955           |
| Water Absorption          |                                 |                   |                     |
| 24 hr, 50% RH             | 0.40                            | %                 | ASTM D570           |
| Equilibrium, 23°C, 50% RH | 0.10                            | %                 | ISO 62              |
| Mechanical                | Nominal Value                   | Unit              | Test Method         |
| Tensile Modulus           |                                 |                   |                     |
| -- <sup>1</sup>           | 6160                            | MPa               | ASTM D638           |
| --                        | 6930                            | MPa               | ISO 527-2/1         |
| Tensile Strength          |                                 |                   |                     |
| Fracture                  | 95.1                            | MPa               | ASTM D638           |
| Fracture                  | 97.0                            | MPa               | ISO 527-2           |
| Tensile Elongation        |                                 |                   |                     |
| Fracture                  | 3.6                             | %                 | ASTM D638           |
| Fracture                  | 3.3                             | %                 | ISO 527-2           |
| Flexural Modulus          |                                 |                   |                     |
| --                        | 5980                            | MPa               | ASTM D790           |
| --                        | 6560                            | MPa               | ISO 178             |
| Flexural Strength         |                                 |                   |                     |
| --                        | 138                             | MPa               | ASTM D790           |
| --                        | 151                             | MPa               | ISO 178             |

| Impact                                               | Nominal Value | Unit        | Test Method |
|------------------------------------------------------|---------------|-------------|-------------|
| Notched Izod Impact                                  |               |             |             |
| 23°C                                                 | 75            | J/m         | ASTM D256   |
| 23°C <sup>2</sup>                                    | 8.2           | kJ/m²       | ISO 180/1A  |
| Unnotched Izod Impact (23°C)                         | 470           | J/m         | ASTM D4812  |
| Instrumented Dart Impact (23°C, Energy at Peak Load) | 10.5          | J           | ASTM D3763  |
| Thermal                                              | Nominal Value | Unit        | Test Method |
| Deflection Temperature Under Load                    |               |             |             |
| 0.45 MPa, unannealed, 3.20mm                         | 141           | °C          | ASTM D648   |
| 1.8 MPa, unannealed, 3.20mm                          | 137           | °C          | ASTM D648   |
| 1.8 MPa, unannealed, 64.0mm span <sup>3</sup>        | 138           | °C          | ISO 75-2/Af |
| Linear thermal expansion coefficient                 |               |             |             |
| Flow: -40 to 40°C                                    | 4.7E-5        | cm/cm/°C    | ASTM E831   |
| Flow: -40 to 40°C                                    | 2.1E-5        | cm/cm/°C    | ISO 11359-2 |
| Lateral: -40 to 40°C                                 | 1.1E-4        | cm/cm/°C    | ASTM E831   |
| Lateral: -40 to 40°C                                 | 7.0E-5        | cm/cm/°C    | ISO 11359-2 |
| Flammability                                         | Nominal Value | Test Method |             |
| Flame Rating (1.50 mm, Testing by SABIC)             | V-0           | UL 94       |             |
| NOTE                                                 |               |             |             |
| 1.                                                   | 50 mm/min     |             |             |
| 2.                                                   | 80*10*4       |             |             |
| 3.                                                   | 80*10*4 mm    |             |             |

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#### Recommended distributors for this material

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