



## LNP™ THERMOCOMP™ Compound DF004RXP

### Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound DF004RXP

Product reorder name: DF004RXP

LNP THERMOCOMP DF004RXP is a compound based on Polycarbonate resin containing 20% Glass Fiber. Some light color grades may have lower impact data than natural and black. Added features include: Mold Release, UL

| TYPICAL PROPERTIES <sup>1</sup>                     | TYPICAL VALUE | Unit                | Standard    |
|-----------------------------------------------------|---------------|---------------------|-------------|
| <b>MECHANICAL</b>                                   |               |                     |             |
| Tensile Stress, yld, Type I, 5 mm/min               | 1070          | kgf/cm <sup>2</sup> | ASTM D 638  |
| Tensile Stress, brk, Type I, 5 mm/min               | 1040          | kgf/cm <sup>2</sup> | ASTM D 638  |
| Tensile Strain, yld, Type I, 5 mm/min               | 2.9           | %                   | ASTM D 638  |
| Tensile Strain, brk, Type I, 5 mm/min               | 3.2           | %                   | ASTM D 638  |
| Tensile Modulus, 50 mm/min                          | 62200         | kgf/cm <sup>2</sup> | ASTM D 638  |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span        | 1760          | kgf/cm <sup>2</sup> | ASTM D 790  |
| Flexural Stress, brk, 1.3 mm/min, 50 mm span        | 1720          | kgf/cm <sup>2</sup> | ASTM D 790  |
| Flexural Modulus, 1.3 mm/min, 50 mm span            | 61800         | kgf/cm <sup>2</sup> | ASTM D 790  |
| Tensile Stress, yield, 5 mm/min                     | 105           | MPa                 | ISO 527     |
| Tensile Stress, break, 5 mm/min                     | 103           | MPa                 | ISO 527     |
| Tensile Strain, yield, 5 mm/min                     | 3             | %                   | ISO 527     |
| Tensile Strain, break, 5 mm/min                     | 3.3           | %                   | ISO 527     |
| Tensile Modulus, 1 mm/min                           | 5720          | MPa                 | ISO 527     |
| Flexural Stress, yield, 2 mm/min                    | 163           | MPa                 | ISO 178     |
| Flexural Stress, break, 2 mm/min                    | 163           | MPa                 | ISO 178     |
| Flexural Strain, break, 2 mm/min                    | 3.7           | %                   | ISO 178     |
| Flexural Modulus, 2 mm/min                          | 5880          | MPa                 | ISO 178     |
| <b>IMPACT</b>                                       |               |                     |             |
| Izod Impact, unnotched, 23°C                        | 91            | cm-kgf/cm           | ASTM D 4812 |
| Izod Impact, notched, 23°C                          | 12            | cm-kgf/cm           | ASTM D 256  |
| Izod Impact, notched, 23°C (Natural & Black Colors) | 12            | cm-kgf/cm           | ASTM D 256  |
| Izod Impact, notched, 23°C (Light & White Colors)   | 9             | cm-kgf/cm           | ASTM D 256  |



## LNP™ THERMOCOMP™ Compound DF004RXP

### Americas: COMMERCIAL

| TYPICAL PROPERTIES <sup>1</sup>            | TYPICAL VALUE | Unit              | Standard    |
|--------------------------------------------|---------------|-------------------|-------------|
| <b>IMPACT</b>                              |               |                   |             |
| Instrumented Impact Energy @ peak, 23°C    | 249           | cm-kgf            | ASTM D 3763 |
| Multiaxial Impact                          | 51            | cm-kgf            | ISO 6603    |
| Izod Impact, unnotched 80*10*4 +23°C       | 53            | kJ/m <sup>2</sup> | ISO 180/1U  |
| Izod Impact, notched 80*10*4 +23°C         | 12            | kJ/m <sup>2</sup> | ISO 180/1A  |
| <b>THERMAL</b>                             |               |                   |             |
| HDT, 1.82 MPa, 3.2mm, unannealed           | 141           | °C                | ASTM D 648  |
| CTE, -30°C to 30°C, flow                   | 2.89E+01      | 1/°C              | ASTM D 696  |
| CTE, -30°C to 30°C, xflow                  | 5.39E+01      | 1/°C              | ASTM D 696  |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm      | 140           | °C                | ISO 75/Af   |
| <b>PHYSICAL</b>                            |               |                   |             |
| Density                                    | 1.352         | g/cm <sup>3</sup> | ASTM D 792  |
| Moisture Absorption, 50% RH, 24 hrs        | 0.13          | %                 | ASTM D 570  |
| Mold Shrinkage, flow, 24 hrs (5)           | 0.2 - 0.4     | %                 | ASTM D 955  |
| Mold Shrinkage, xflow, 24 hrs (5)          | 0.6 - 0.8     | %                 | ASTM D 955  |
| Density                                    | 1.35          | g/cm <sup>3</sup> | ISO 1183    |
| Water Absorption, 23°C/24hrs               | 0.17          | %                 | ISO 62-1    |
| <b>FLAME CHARACTERISTICS</b>               |               |                   |             |
| UL Recognized, 94HB Flame Class Rating (3) | 0.75 - 3      | mm                | UL 94       |



LNP™ THERMOCOMP™ Compound DF004RXP

Americas: COMMERCIAL

| PROCESSING PARAMETERS       | TYPICAL VALUE | Unit |
|-----------------------------|---------------|------|
| <b>Injection Molding</b>    |               |      |
| Drying Temperature          | 110           | °C   |
| Drying Time                 | 3 - 6         | hrs  |
| Maximum Moisture Content    | 0.02          | %    |
| Melt Temperature            | 285 - 310     | °C   |
| Nozzle Temperature          | 285 - 305     | °C   |
| Front - Zone 3 Temperature  | 280 - 300     | °C   |
| Middle - Zone 2 Temperature | 270 - 290     | °C   |
| Rear - Zone 1 Temperature   | 260 - 280     | °C   |
| Mold Temperature            | 80 - 110      | °C   |
| Back Pressure               | 0.1 - 0.3     | MPa  |
| Screw Speed                 | 50 - 90       | rpm  |