



## LNP\* Thermocomp\* Compound KZ004

### Asia Pacific: COMMERCIAL

Also known as: LNP\* Thermocomp\* Compound KF-1004 M

Product reorder name: KZ004

LNP\* THERMOCOMP\* KZ004 is a compound based on Acetal Copolymer resin containing Glass Fiber, Milled Glass.

| TYPICAL PROPERTIES <sup>1</sup>         | TYPICAL VALUE | UNIT                | STANDARD    |
|-----------------------------------------|---------------|---------------------|-------------|
| <b>MECHANICAL</b>                       |               |                     |             |
| Tensile Stress, yield                   | 430           | kgf/cm <sup>2</sup> | ASTM D 638  |
| Tensile Stress, break                   | 420           | kgf/cm <sup>2</sup> | ASTM D 638  |
| Tensile Strain, yield                   | 8.1           | %                   | ASTM D 638  |
| Tensile Strain, break                   | 22.9          | %                   | ASTM D 638  |
| Tensile Modulus, 50 mm/min              | 40400         | kgf/cm <sup>2</sup> | ASTM D 638  |
| Flexural Stress                         | 770           | kgf/cm <sup>2</sup> | ASTM D 790  |
| Flexural Modulus                        | 35800         | kgf/cm <sup>2</sup> | ASTM D 790  |
| Tensile Stress, yield                   | 44            | MPa                 | ISO 527     |
| Tensile Stress, break                   | 44            | MPa                 | ISO 527     |
| Tensile Strain, yield                   | 7.1           | %                   | ISO 527     |
| Tensile Strain, break                   | 9.7           | %                   | ISO 527     |
| Tensile Modulus, 1 mm/min               | 3430          | MPa                 | ISO 527     |
| Flexural Stress                         | 70            | MPa                 | ISO 178     |
| Flexural Modulus                        | 3310          | MPa                 | ISO 178     |
| <b>IMPACT</b>                           |               |                     |             |
| Izod Impact, unnotched, 23°C            | 54            | cm-kgf/cm           | ASTM D 4812 |
| Izod Impact, notched, 23°C              | 3             | cm-kgf/cm           | ASTM D 256  |
| Instrumented Impact Energy @ peak, 23°C | 27            | cm-kgf              | ASTM D 3763 |
| Multiaxial Impact                       | 44            | cm-kgf              | ISO 6603    |
| Izod Impact, unnotched 80*10*4 +23°C    | 37            | kJ/m <sup>2</sup>   | ISO 180/1U  |
| Izod Impact, notched 80*10*4 +23°C      | 3             | kJ/m <sup>2</sup>   | ISO 180/1A  |
| <b>THERMAL</b>                          |               |                     |             |
| HDT, 1.82 MPa, 3.2mm, unannealed        | 91            | °C                  | ASTM D 648  |



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|---------------------------------------|---------------|-------------------|-------------|
| <b>THERMAL</b>                        |               |                   |             |
| CTE, -40°C to 40°C, flow              | 7.38E-05      | 1/°C              | ASTM E 831  |
| CTE, -40°C to 40°C, xflow             | 7.92E-05      | 1/°C              | ASTM E 831  |
| CTE, -40°C to 40°C, flow              | 7.51E-05      | 1/°C              | ISO 11359-2 |
| CTE, -40°C to 40°C, xflow             | 8.01E-05      | 1/°C              | ISO 11359-2 |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm | 106           | °C                | ISO 75/Af   |
| <b>PHYSICAL</b>                       |               |                   |             |
| Density                               | 1.53          | g/cm <sup>3</sup> | ASTM D 792  |
| Moisture Absorption, 50% RH, 24 hrs   | 0.2           | %                 | ASTM D 570  |
| Mold Shrinkage, flow, 24 hrs          | 2.7 - 3       | %                 | ASTM D 955  |
| Mold Shrinkage, xflow, 24 hrs         | 1.8 - 2       | %                 | ASTM D 955  |
| Mold Shrinkage, flow, 24 hrs          | 2.7 - 3       | %                 | ISO 294     |
| Mold Shrinkage, xflow, 24 hrs         | 1.8 - 2       | %                 | ISO 294     |
| Density                               | 1.53          | g/cm <sup>3</sup> | ISO 1183    |
| Moisture Absorption (23°C / 50% RH)   | 0.34          | %                 | ISO 62      |