

Product Texts

GENESTAR GP2450NH-2 is an injection molding grade with 45% GF developed for reflow applications. It is halogen-free and has a v0 flammability.

Thanks to its JEDEC MSL 1 rating (moisture sensitive level 1), this grade shows an excellent resistance to blisters.

GENESTAR GP2450NH-2 exhibits a good balance between mechanical properties, low warpage and a high processability, making it suitable for reflow components such as:

- DDR4 connectors
- USB 3.0 type C connectors
- wire-to-board and board-to-board connectors

| Processing/Physical Characteristics | Value | Unit | Test Standard |
|--|-------|------|-----------------|
| ISO Data | | | |
| ^[C] Molding shrinkage, parallel | 0.2 | % | ISO 294-4, 2577 |
| ^[C] Molding shrinkage, normal | 0.7 | % | ISO 294-4, 2577 |

[C]: CAMPUS

| Mechanical properties | Value | Unit | Test Standard |
|--|-------|-------------------|---------------|
| ISO Data | | | |
| ^[C] Tensile Modulus | 15100 | MPa | ISO 527 |
| Tensile Strength | 150 | MPa | ISO 527 |
| ^[C] Stress at break | 146 | MPa | ISO 527 |
| ^[C] Strain at break | 1.5 | % | ISO 527 |
| Flexural modulus, 23°C | 13900 | MPa | ISO 178 |
| Flexural strength | 220 | MPa | ISO 178 |
| ^[C] Charpy notched impact strength, +23°C | 9.3 | kJ/m ² | ISO 179/1eA |
| ASTM Data | | | |
| Tensile Strength | 165 | MPa | ASTM D 638 |
| Flexural Modulus | 13000 | MPa | ASTM D 790 |
| Flexural Strength | 224 | MPa | ASTM D 790 |
| Izod Impact notched, 1/8 in | 100 | J/m | ASTM D 256 |

[C]: CAMPUS

| Thermal properties | Value | Unit | Test Standard |
|---|-------|-------|-----------------|
| ISO Data | | | |
| ^[C] Melting temperature, 10°C/min | 306 | °C | ISO 11357-1/-3 |
| ^[C] Glass transition temperature, 10°C/min | 125 | °C | ISO 11357-1/-2 |
| ^[C] Temp. of deflection under load, 1.80 MPa | 280 | °C | ISO 75-1/-2 |
| ^[C] Burning Behav. at thickness h | V-0 | class | IEC 60695-11-10 |
| Thickness tested | 0.4 | mm | - |
| ASTM Data | | | |
| UL 94 Flame rating | V-0 | - | UL 94 |
| DTUL @ 264 psi | 285 | °C | ASTM D 648 |
| Melting Temperature | 306 | °C | ASTM D 3418 |
| Glass Transition Temperature | 125 | °C | ASTM E 1356 |

[C]: CAMPUS

| Electrical properties | Value | Unit | Test Standard |
|---|-------|--------|---------------|
| ISO Data | | | |
| ^[C] Comparative tracking index | 600 | - | IEC 60112 |
| ASTM Data | | | |
| Dielectric Strength, Short Time | 30 | kV/mm | ASTM D 149 |
| Volume Resistivity | >1E15 | Ohm*cm | ASTM D 257 |

[C]: CAMPUS

| Other properties | Value | Unit | Test Standard |
|---------------------------------|--------------|-------------------|----------------------|
| ^[C] Water absorption | 0.1 | % | Sim. to ISO 62 |
| ^[C] Density | 1530 | kg/m ³ | ISO 1183 |
| Density | 1530 | kg/m ³ | ASTM D 792 |

[C]: CAMPUS

Characteristics**Processing**

Injection Molding

Special Characteristics

Flame retardant, Halogen-free, Heat stabilized or stable to heat

Features

Low Warpage, Weldable

Applications

Electrical and Electronical

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa