

Dupilon

Polycarbonate Resin

| Properties | | | | Glass Fiber Reinforced (Flame Retardant) | | | | |
|---|----------------------|-------------------------------------|------------------------|--|---------------------------|---------------------------|-----|-----|
| | | | | EGN2010R2 | EGN2020R2 | EGN2030R2 | | |
| Test Method | | | | Non Br & Non P | Non Br & Non P | Non Br & Non P | | |
| Terms | | | | GF | GF | GF | | |
| Units | | | | 10% | 20% | 30% | | |
| | | | | - | - | - | | |
| Physical properties | | | | | | | | |
| Density | ISO 1183 | - | g/cm ³ | 1.27 | 1.35 | 1.43 | | |
| Water absorption | | 23degC, 50%RH 23degC, Underwater | % | - 0.14 | - 0.11 | - 0.09 | | |
| Rheological properties | | | | | | | | |
| Melt Mass-flow Rate | ISO 1133 | Temperature | g/10min | - | - | - | | |
| Melt Volume-flow Rate | | | cm ³ /10min | - | - | - | | |
| | | degC | | - | - | - | | |
| | | Load | kgf | - | - | - | | |
| Moulding shrinkage (3.2mmt) | - | MD | % | 0.3 - 0.5 | 0.1 - 0.3 | 0.1 - 0.3 | | |
| | | TD | | 0.4 - 0.8 | 0.3 - 0.5 | 0.3 - 0.5 | | |
| Mechanical properties | | | | | | | | |
| Tensile modulus | ISO 527-1 , 527-2 | - | MPa | 4400 | 6200 | 8900 | | |
| Yield stress | | | | | - | - | - | |
| Yield strain | | | | | % | - | - | - |
| Nominal strain at break | | | | | | - | - | - |
| Stress at 50% strain | | | | | MPa | - | - | - |
| Stress at break | | | | | | 82 | 104 | 114 |
| Strain at break | | | % | 5 | 4 | 3 | | |
| Flexural strength | ISO 178 | - | MPa | 129 | 163 | 187 | | |
| Flexural modulus | | | | 3600 | 5700 | 8100 | | |
| Charpy impact strength | ISO 179-1 , 179-2 | 23 degC | kJ/m ² | 50 | 60 | 60 | | |
| Charpy notched impact strength | | 23 degC | kJ/m ² | 10 | 14 | 16 | | |
| Thermal properties | | | | | | | | |
| Temperature of deflection under load | ISO 75-1 , 75-2 | 1.80MPa 0.45MPa | degC | 141 145 | 144 146 | 145 148 | | |
| Coefficient of Linear thermal expansion | ISO 11359-2 | MD TD | 1/degC | 4.0E-05 6.7E-05 | 2.6E-05 6.3E-05 | 1.8E-05 6.3E-05 | | |
| Flammability | UL94 | - | - | V-0(1.5mm) V-2(0.75mm) | V-0(1.5mm) V-2(0.75mm) | V-0(1.5mm) V-2(0.75mm) | | |
| Electrical properties | | | | | | | | |
| Relative permittivity | IEC 60250 | 100Hz 1MHz | - | - | - | - | | |
| Dissipation factor | IEC 60250 | 100Hz 1MHz | - | - | - | - | | |
| Volume resistivity | IEC 60093 | - | ohm-m | - | - | - | | |
| Surface resistivity | IEC 60093 | - | ohm | - | - | - | | |
| Electric strength | IEC 60243-1 | 1mmt 2mmt 3mmt | MV/m | - | - | - | | |
| Comparative tracking index (CTI) | UL746A | - | - | same as 3 | same as 3 | same as 4 | | |

The listed properties are portrayed as general information only and are not product specifications.

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