



novalca

NOVALUX® REC FR FV20 R70

PC compound,
glass fiber reinforced,
flame retardant grade
with post-industrial raw material

R70: with at least 70% of post-industrial raw material. Incompliance with ISO 14021:2016.
FR: flame retardant, V0 at 1.6mm, GWFI 960°C.
FV20: 20% glass fiber reinforced grade.
Color: available in black and in a limited range of grey colors.
 For injection molding of electric and industrial parts requiring improved stiffness.

| RECOMMENDED PROCESSING PARAMETERS FOR INJECTION MOLDING | | | | | |
|--|---|-------------------|--|--|--|
| DRYING CONDITIONS | BARREL TEMPERATURE | MOULD TEMPERATURE | | | |
| 100 °C x 3 + 4 hours Recommended moisture level after drying ≤0.02% | 280 + 320 °C Standard melt temperature: 300 °C | 80 + 120 °C | | | |
| SHRINKAGE: Shrinkage is affected by the geometry and the wall thickness of the molded part by the position and size of the gate and by the processing parameters. In addition, glass-fiber reinforced products show a significant difference in the shrinkage perpendicular and parallel to the flow direction. | | | | | |
| PACKAGING | | | | | |
| 25 Kg Bags, 1000 Kg Octabins, 750 Kg Boxes | | | | | |

| PROPERTIES | METHOD | | UNIT | TYPICAL VALUES |
|---|-----------------|----------------|--------------------|----------------|
| PHYSICAL | | | | |
| Density | ASTM D792 | ISO 1183 | gr/cm ³ | 1.34 |
| Melt flow index MFI (300°C – 1.2 Kg) | ASTM D1238 | ISO 1133 | g/10' | 9 |
| Humidity Absorption – (Equilibrium value, in air, 23°C, 50% RH) | INTERNAL METHOD | | % | 0.10 |
| Mould Shrinkage | INTERNAL METHOD | | % | 0.2 + 0.5 |
| Reinforcing filler | INTERNAL METHOD | | % | 20 |
| MECHANICAL | | | | |
| Tensile strength: stress at break | ASTM D638 | ISO 527-1,-2 | MPa | 70 |
| strain at break | ASTM D638 | ISO 527-1,-2 | % | 2.5 |
| Flexural modulus | ASTM D790 | ISO 178 | MPa | 5100 |
| IZOD notched impact strength, at 23 °C | ASTM D256 | - | J/m | 80 |
| Specimen dimensions 62.5 mm x 12.7 mm x 3.2 mm | | | | |
| THERMAL | | | | |
| VICAT softening temperature at 49 N-120 °C/h | ASTM D1525/B | ISO 306/B | °C | 145 |
| Ball pressure test at 125±2 °C | BS 3456 | IEC 60695-10-2 | °C | Passed |
| ELECTRICAL | | | | |
| Surface resistivity | ASTM D257 | IEC 60093 | Ohm | 1E16 |
| FLAMMABILITY | | | | |
| Flammability UL94 (thickness 3.2 mm) | UL94 | Class | V0 | |
| Flammability UL94 (thickness 1.6 mm) | UL94 | Class | V0 | |
| Glow wire flammability index GWFI (thickness 3.2 mm) | IEC 60695-2-12 | °C | 960 | |
| Glow wire flammability index GWFI (thickness 1.6 mm) | IEC 60695-2-12 | °C | 960 | |
| Burning rate FMVSS302 (thicknesses 2.2/ 3.2 mm) | ISO 3795 | mm/min | Passed | |

Our technical data are provided for guidance purpose only and are based on average values. The data are not meant to be used for specification or warranted purposes. Values may be affected by the design of the mold/die, the processing conditions and coloring/pigmentation of the product. Unless specified to the contrary, the data have been established on standardized test specimens at room temperature. All technical information is subject to continuous update, so the customer shall always ensure that the latest release of technical information is at his own disposal. It is the customer's responsibility to inspect and test our products in order to determine to his own satisfaction whether they are suitable for his intended uses and applications or used in conjunction with third-party materials. Unless specifically stated with reference to the specific color code, the products mentioned herein are not suitable for applications in the pharmaceutical, medical, dental and toys sectors, in contact with foodstuff or for potable water transportation.

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