# XANTAR™ G4F 23 UR

## Property Data

PC-GF20 FR

20% Glass Reinforced, Flame Retardant, UV Stabilized

| Properties | Typical Data | Unit | Test Method |
|---|---|---|---|
| **RHEOLOGICAL PROPERTIES** | | | |
| Melt volume-flow rate | **6** | cm³/10min | ISO 1133 |
| Temperature | **300** | °C | ISO 1133 |
| Load | **1.2** | kg | ISO 1133 |
| Molding shrinkage (parallel) | **0.2** | % | ISO 294-4 |
| Molding shrinkage (normal) | **0.5** | % | ISO 294-4 |
| **MECHANICAL PROPERTIES** | | | |
| Tensile modulus | **6000** | MPa | ISO 527-1/-2 |
| Stress at break | **95** | MPa | ISO 527-1/-2 |
| Strain at break | **2.5** | % | ISO 527-1/-2 |
| Flexural modulus | **5500** | MPa | ISO 178 |
| Flexural strength | **145** | MPa | ISO 178 |
| Izod notched impact strength (23°C) | **10** | kJ/m² | ISO 180/4A |
| Rockwell hardness, M scale | **91** | - | ISO 2039-2 |
| **THERMAL PROPERTIES** | | | |
| Temp. of deflection under load (1.80 MPa) | **145** | °C | ISO 75-1/-2 |
| Vicat softening temperature (50°C/h 50N) | **150** | °C | ISO 306 |
| Coeff. of linear therm. expansion (parallel) | **0.3** | E-4/°C | ISO 11359-1/-2 |
| Burning Behav. at 1.5 mm nom. thickn. | **V-0** | class | IEC 60695-11-10 |
| Thickness tested | **1.5** | mm | IEC 60695-11-10 |
| Burning Behavior at thickness h | **V-0** | class | IEC 60695-11-10 |
| Thickness tested | **1.2** | mm | IEC 60695-11-10 |
| Oxygen index | **35** | % | ISO 4589-1/-2 |
| Ball pressure temperature | **125** | °C | IEC 60695-10-2 |
| Glow Wire Flammability Index GWFI | **960** | °C | IEC 60695-2-12 |
| GWFI (Thickness (1) tested) | **1.5** | mm | IEC 60695-2-12 |
| Glow Wire Flammability Index GWFI | **960** | °C | IEC 60695-2-12 |
| GWFI (Thickness (2) tested) | **3** | mm | IEC 60695-2-12 |
| Glow Wire Ignition Temperature GWIT | **850** | °C | IEC 60695-2-13 |
| GWIT (Thickness (1) tested) | **1.5** | mm | IEC 60695-2-13 |
| Glow Wire Ignition Temperature GWIT | **875** | °C | IEC 60695-2-13 |
| GWIT (Thickness (2) tested) | **3** | mm | IEC 60695-2-13 |
| Relative Temperature Index - electrical | **130** | °C | UL746B |
| RTI electrical (Thickness (1) tested) | **1.5** | mm | UL746B |
| Relative Temperature Index - electrical | **130** | °C | UL746B |
| RTI electrical (Thickness (2) tested) | **3** | mm | UL746B |
| Relative Temperature Index - with impact | **125** | °C | UL746B |
| RTI with impact (Thickness (1) tested) | **1.5** | mm | UL746B |
| Relative Temperature Index - with impact | **130** | °C | UL746B |

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| | | | |
|---|---|---|---|
| RTI with impact (Thickness (2) tested) | **3** | mm | UL746B |
| Relative Temperature Index - without impact | **125** | °C | UL746B |
| RTI without impact (Thickness (1) tested) | **1.5** | mm | UL746B |
| Relative Temperature Index - without impact | **130** | °C | UL746B |
| RTI without impact (Thickness (2) tested) | **3** | mm | UL746B |
| **ELECTRICAL PROPERTIES** | | | |
| Relative permittivity (100Hz) | **3.25** | - | IEC 60250 |
| Relative permittivity (1 MHz) | **3.2** | - | IEC 60250 |
| Dissipation factor (100 Hz) | **9** | E-4 | IEC 60250 |
| Dissipation factor (1 MHz) | **90** | E-4 | IEC 60250 |
| Volume resistivity | **>1E13** | Ohm*m | IEC 60093 |
| Surface resistivity | **>1E15** | Ohm | IEC 60093 |
| Electric strength | **29** | kV/mm | IEC 60243-1 |
| Comparative tracking index | **200** | - | IEC 60112 |
| Comparative tracking index (PLC) | **3** | class | UL 746A |
| **OTHER PROPERTIES** | | | |
| Water absorption | **0.29** | % | Sim. to ISO 62 |
| Density | **1350** | kg/m³ | ISO 1183 |
| **MATERIAL SPECIFIC PROPERTIES** | | | |
| Limiting Viscosity Number | **48** | cm³/g | ISO 1628-4 |
| **RHEOLOGICAL CALCULATION PROPERTIES** | | | |
| Thermal conductivity of melt | **0.29** | W/(m K) | - |

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