# XANTAR® XRM 1006

PC FR

Mitsubishi Engineering-Plastics Corporation

## Product Texts

Impact Modified, Flame Retardant, Good Flow

ISO 1043 PC FR

XANTAR® Polycarbonate & Blends, your global partner for innovative added value

| Rheological properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Melt volume-flow rate, MVR | 6 | cm³/10min | ISO 1133 |
| Temperature | 300 | °C | ISO 1133 |
| Load | 1.2 | kg | ISO 1133 |
| Molding shrinkage, parallel | 0.8 | % | ISO 294-4, 2577 |

| Mechanical properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Tensile Modulus | 2200 | MPa | ISO 527-1/-2 |
| Yield stress | 55 | MPa | ISO 527-1/-2 |
| Yield strain | 6 | % | ISO 527-1/-2 |
| Nominal strain at break | >50 | % | ISO 527-1/-2 |
| Puncture - maximum force, +23°C | 5500 | N | ISO 6603-2 |
| Puncture - maximum force, -30°C | 6000 | N | ISO 6603-2 |
| Puncture energy, +23°C | 60 | J | ISO 6603-2 |
| Puncture energy, -30°C | 60 | J | ISO 6603-2 |

| Thermal properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Temp. of deflection under load (1.80 MPa) | 130 | °C | ISO 75-1/-2 |
| Vicat softening temperature, 50°C/h 50N | 145 | °C | ISO 306 |
| Coeff. of linear therm. expansion, parallel | 65 | E-6/K | ISO 11359-1/-2 |
| Burning behav. at 1.5 mm nom. thickn. | V-1 | class | IEC 60695-11-10 |
| UL recognition | UL | - | - |
| Burning behav. at thickness h | V-0 | class | IEC 60695-11-10 |
| Thickness tested | 2.5 | mm | IEC 60695-11-10 |
| UL recognition | UL | - | - |
| Burning behav. 5V at thickness h | 5VB | class | IEC 60695-11-20 |
| Thickness tested | 2.5 | mm | IEC 60695-11-20 |
| UL recognition | UL | - | - |

| Electrical properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Relative permittivity, 100Hz | 2.9 | - | IEC 60250 |
| Relative permittivity, 1MHz | 2.8 | - | IEC 60250 |
| Dissipation factor, 100Hz | 6.6 | E-4 | IEC 60250 |
| Dissipation factor, 1MHz | 92 | 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 |

| Other properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Water absorption | 0.35 | % | Sim. to ISO 62 |

## XANTAR® XRM 1006

PC FR — Mitsubishi Engineering-Plastics Corporation

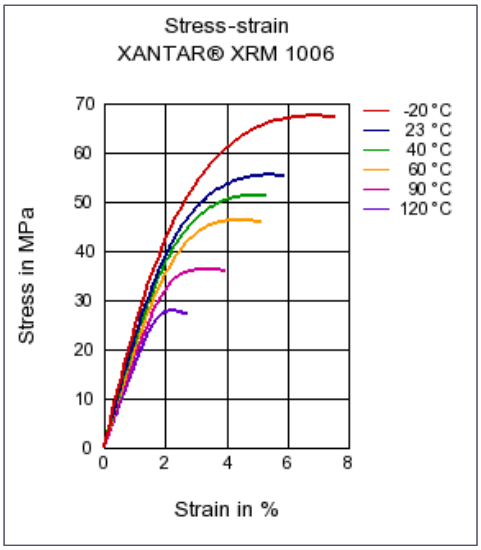
| | | | |
|---|---|---|---|
| Density | 1200 | kg/m³ | ISO 1183 |

| Rheological calculation properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Density of melt | 1040 | kg/m³ | - |
| Thermal conductivity of melt | 0.26 | W/(m K) | - |
| Spec. heat capacity of melt | 2150 | J/(kg K) | - |
| Eff. thermal diffusivity | 1.5E-7 | m²/s | - |
| Ejection temperature | 144 | °C | - |

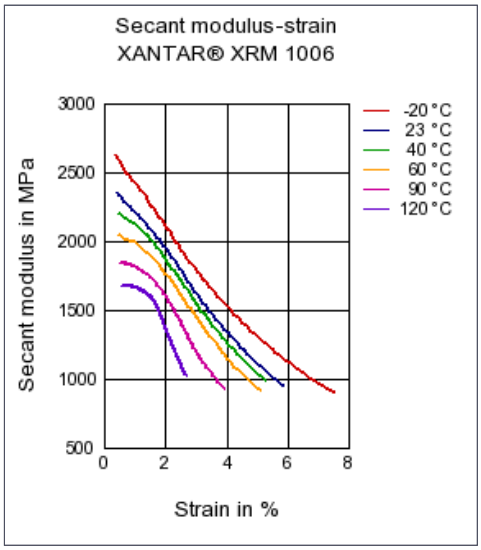
| Test specimen production | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Injection Molding, melt temperature | 290 | °C | ISO 294 |
| Injection Molding, mold temperature | 80 | °C | ISO 10724 |

### Diagrams

#### Stress-strain




#### Secant modulus-strain




### Characteristics

**Processing**
Injection Molding

**Additives**
Release agent

**Delivery form**
Pellets

**Special Characteristics**
Flame retardant, Heat stabilized or stable to heat

### Other text information

**Injection Molding**
Injection Molding Recommendations