# XANTAR™ MX 1004

PC-I FR(40) — Mitsubishi Engineering-Plastics Corporation

## Product Texts

Impact Modified, Flame Retardant, Chlorine/Bromine free

ISO 1043 PC-I FR(40)

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

| Processing/Physical Characteristics | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| [C] Melt volume-flow rate, MVR | **21** | cm³/10min | ISO 1133 |
| Temperature | **300** | °C | - |
| Load | **1.2** | kg | - |
| [C] Molding shrinkage, parallel | **0.6** | % | ISO 294-4, 2577 |
| [C] Density of melt | **1010** | kg/m³ | - |
| [C] Thermal conductivity of melt | **0.23** | W/(m K) | - |
| [C] Spec. heat capacity of melt | **1710** | J/(kg K) | - |
| [C] Eff. thermal diffusivity | **1E-7** | m²/s | - |
| [C] Ejection temperature | **115** | °C | - |

[C]: CAMPUS

| Mechanical properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| [C] Tensile Modulus | **2200** | MPa | ISO 527 |
| [C] Yield stress | **55** | MPa | ISO 527 |
| [C] Yield strain | **6** | % | ISO 527 |
| [C] Nominal strain at break | **>50** | % | ISO 527 |

[C]: CAMPUS

| Thermal properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| [C] Temp. of deflection under load, 1.80 MPa | **115** | °C | ISO 75-1/-2 |
| [C] Vicat softening temperature, B | **135** | °C | ISO 306 |
| [C] Coeff. of linear therm. expansion, parallel | **65** | E-6/K | ISO 11359-1/-2 |
| [C] Burning Behav. at 1.5 mm nom. thickn. | **V-0** | class | IEC 60695-11-10 |
| Thickness tested | **1.5** | mm | - |
| Yellow Card available | **yes** | - | - |
| [C] Burning Behav. at thickness h | **V-0** | class | IEC 60695-11-10 |
| Thickness tested | **3.0** | mm | - |
| Yellow Card available | **yes** | - | - |
| [C] Oxygen index | **33** | % | ISO 4589-1/-2 |

[C]: CAMPUS

| Electrical properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| [C] Relative permittivity, 100Hz | **3.1** | - | IEC 62631-2-1 |
| [C] Relative permittivity, 1MHz | **3** | - | IEC 62631-2-1 |
| [C] Dissipation factor, 100Hz | **18** | E-4 | IEC 62631-2-1 |
| [C] Dissipation factor, 1MHz | **82** | E-4 | IEC 62631-2-1 |
| [C] Volume resistivity | **>1E13** | Ohm*m | IEC 62631-3-1 |
| [C] Surface resistivity | **>1E15** | Ohm | IEC 62631-3-2 |
| [C] Electric strength | **29** | kV/mm | IEC 60243-1 |
| [C] Comparative tracking index | **325** | - | IEC 60112 |

[C]: CAMPUS

| Other properties | Value | Unit | Test Standard |
|---|---|---|---|
| [C] Water absorption | **0.35** | % | Sim. to ISO 62 |
| [C] Density | **1190** | kg/m³ | ISO 1183 |

[C]: CAMPUS

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

[C]: CAMPUS

| Processing Recommendation Injection Molding | Value | Unit | Test Standard |
|---|---|---|---|
| Pre-drying - Temperature | **110** | °C | - |
| Pre-drying - Time | **4** | h | - |
| Processing humidity | **≤0.03** | % | - |
| Melt temperature | **270 - 290** | °C | - |
| Mold temperature | **70 - 100** | °C | - |
| Zone 1 | **255 - 265** | °C | - |
| Zone 2 | **265 - 275** | °C | - |
| Zone 3 | **270 - 280** | °C | - |
| Nozzle temperature | **260 - 270** | °C | - |

## Characteristics

**Processing**
Injection Molding

**Special Characteristics**
Flame retardant, High impact or impact modified

**Delivery form**
Pellets

**Regional Availability**
Europe

**Additives**
Release agent

## Other text information

**Injection molding**
Injection Molding Recommendations