

Product Texts

POM copolymer Very easy flowing Injection molding type with high rigidity and hardness; good chemical resistance to solvents, fuel and strong alkalis as well as good hydrolysis resistance; high resistance to thermal and oxidative degradation. Emission according to VDA 275 < 10 mg/kg Burning rate ISO 3795 and FMVSS 302 < 75 mm/min for a thickness more than 1 mm. Monomers and additives are listed in EU-Regulation (EU) 10/2011 FDA compliant according to 21 CFR 177.2470 FDA = Food and Drug Administration (USA)

| | | |
|------------------------------------|----|--------------------|
| Flammability @1.6mm nom. thickn. | HB | - |
| Flammability at thickness h (3 mm) | HB | UL recognition (h) |

| Processing/Physical Characteristics | Value | Unit | Test Standard |
|---|--------------|------------------------|-----------------|
| ISO Data | | | |
| ^[C] Melt volume-flow rate, MVR | 24 | cm ³ /10min | ISO 1133 |
| Temperature | 190 | °C | - |
| Load | 2.16 | kg | - |
| ^[C] Molding shrinkage, parallel | 1.9 | % | ISO 294-4, 2577 |
| ^[C] Molding shrinkage, normal | 1.8 | % | ISO 294-4, 2577 |
| ^[C] Density of melt | 1200 | kg/m ³ | - |
| ^[C] Thermal conductivity of melt | 0.155 | W/(m K) | - |
| ^[C] Spec. heat capacity of melt | 2210 | J/(kg K) | - |
| ^[C] Ejection temperature | 140 | °C | - |

[C]: CAMPUS

| Mechanical properties | Value | Unit | Test Standard |
|--|-------------|-------------------|---------------|
| ISO Data | | | |
| ^[C] Tensile Modulus | 2900 | MPa | ISO 527 |
| ^[C] Yield stress | 65 | MPa | ISO 527 |
| ^[C] Yield strain | 7.5 | % | ISO 527 |
| ^[C] Nominal strain at break | 17 | % | ISO 527 |
| ^[C] Charpy impact strength, +23°C | 170 | kJ/m ² | ISO 179/1eU |
| ^[C] Charpy impact strength, -30°C | 170 | kJ/m ² | ISO 179/1eU |
| ^[C] Charpy notched impact strength, +23°C | 5.5 | kJ/m ² | ISO 179/1eA |
| ^[C] Charpy notched impact strength, -30°C | 5.5 | kJ/m ² | ISO 179/1eA |

[C]: CAMPUS

| Thermal properties | Value | Unit | Test Standard |
|--|------------|-------|-----------------|
| ISO Data | | | |
| ^[C] Melting temperature, 10°C/min | 166 | °C | ISO 11357-1/-3 |
| ^[C] Temp. of deflection under load, 1.80 MPa | 106 | °C | ISO 75-1/-2 |
| ^[C] Coeff. of linear therm. expansion, parallel | 110 | E-6/K | ISO 11359-1/-2 |
| ^[C] Burning Behav. at 1.5 mm nom. thickn. | HB | class | IEC 60695-11-10 |
| Thickness tested | 1.5 | mm | - |
| ^[C] Burning Behav. at thickness h | HB | class | IEC 60695-11-10 |
| Thickness tested | 3.0 | mm | - |
| Yellow Card available | yes | - | - |

[C]: CAMPUS

| Electrical properties | Value | Unit | Test Standard |
|---|-------------|-------|---------------|
| ISO Data | | | |
| ^[C] Relative permittivity, 100Hz | 4 | - | IEC 62631-2-1 |
| ^[C] Relative permittivity, 1MHz | 4 | - | IEC 62631-2-1 |
| ^[C] Dissipation factor, 100Hz | 25 | E-4 | IEC 62631-2-1 |
| ^[C] Dissipation factor, 1MHz | 50 | E-4 | IEC 62631-2-1 |
| ^[C] Volume resistivity | 1E12 | Ohm*m | IEC 62631-3-1 |
| ^[C] Surface resistivity | 1E14 | Ohm | IEC 62631-3-2 |
| ^[C] Electric strength | 35 | kV/mm | IEC 60243-1 |

[C]: CAMPUS

| Other properties | Value | Unit | Test Standard |
|------------------------------------|-------------|-------------------|----------------|
| ^[C] Water absorption | 0.65 | % | Sim. to ISO 62 |
| ^[C] Humidity absorption | 0.2 | % | Sim. to ISO 62 |
| ^[C] Density | 1410 | kg/m ³ | ISO 1183 |

[C]: CAMPUS

| Processing Recommendation Injection Molding | Value | Unit | Test Standard |
|---|------------------|------|---------------|
| Pre-drying - Temperature | 100 - 120 | °C | - |
| Pre-drying - Time | 3 - 6 | h | - |
| Processing humidity | ≤0.1 | % | - |
| Melt temperature | 180 - 190 | °C | - |
| Mold temperature | 60 - 120 | °C | - |

Characteristics

Processing

Injection Molding

Delivery form

Pellets, Granules

Additives

Release agent

Special Characteristics

U.V. stabilized or stable to weather

Features

Low Emission, Thermal Stability, Copolymer

Chemical Resistance

Alkali Resistance, Solvent Resistance, Hydrolytically Stable, Oxidation Resistance

Certifications

Food contact, Food approval 10/2011, Food approval FDA 21 CFR

Applications

Automotive

Other text information

Injection molding

To achieve low emission values pre drying using a recirculating air dryer (100 to 120 °C / max. 40 mm layer / 3 to 6 hours) is recommended.

Max. Water content 0,1 %

Standard injection moulding machines with three phase (15 to 25 D) plasticating screws will fit.