



PRODUCT INFORMATION

TAROLOX 10 K6

PBT medium viscosity 30% glass beads reinforced , good flow, good stiffness and deflection temperature, with isotropic properties and low tendency to warpage.

ISO short Form ISO 1043: PBT-GB30 Pellets

Key Features

- Glass beads reinforced
- Good flowability
- Good dimensional stability

Availability

- W: lubricated
- LP: laser printable
- L: UV stabilized
- H: heat stabilized
- All colours

Process

- INJECTION MOULDING

Application

- Household
- Electronic
- Electrical
- Consumer

| Property | Method | Unit | Value | Condition | State |
|--------------------------------------|-----------------|-------------------|---------|-------------|-------|
| ELECTRICAL | | | | | |
| Tracking Resistance (CTI - Method A) | IEC 60112 | Volt | 400 | | |
| PHYSICAL | | | | | |
| Density (+23°C) | ISO 1183 | g/cm ³ | 1,55 | | |
| Filler content | ISO 3451 | % | 30 | 750°C - 1 h | |
| Granule Humidity | Internal method | % | <0,05 | | |
| Water Absorption (24h / +23°C) | ISO 62 | % | 0,05 | | |
| Water Absorption at Saturation | ISO 62 | % | 0,24 | | |
| Mould Shrinkage (Parallel) | Internal method | % | 0,3-0,6 | | |
| Mould Shrinkage (Normal) | Internal method | % | 0,4-0,7 | | |
| Melting temperature (DSC) | ISO 11357 | °C | 225 | | |

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|----------------------|----------|----------|------|-----------------|
| Melt Flow Rate (MFR) | ISO 1133 | g/10 min | 12,5 | 250°C - 2,16 kg |
|----------------------|----------|----------|------|-----------------|

MECHANICAL

| | | | | |
|-------------------------------|-------------|-------------------|------|-----------------|
| Tensile Modulus | ISO 527-1,2 | MPa | 6500 | Speed 1 mm/min |
| Elongation at Break | ISO 527-1,2 | % | 2,5 | Speed 50 mm/min |
| Tensile Break Strength | ISO 527-1,2 | MPa | 110 | Speed 50 mm/min |
| Flexural Modulus | ISO 178 | MPa | 6000 | Speed 1 mm/min |
| Flexural Break Strength | ISO 178 | MPa | 130 | Speed 1 mm/min |
| IZOD Notched Impact | ASTM D256 | J/m | 50 | +23°C |
| CHARPY Notched Impact (+23°C) | ISO 179/1eA | kJ/m ² | 5 | |

THERMAL

| | | | | |
|---|----------------|----|-----|-----------|
| Softening Temperature - 5 kg (VST/B/50) | ISO 306 | °C | 205 | 50°C / h |
| Deflection Temperature 1,80 MPa (HDT A) | ISO 75A | °C | 145 | 120°C / h |
| Deflection Temperature 0,45 MPa (HDT B) | ISO 75B | °C | 190 | 120°C / h |
| Ball Pressure Test | IEC 60695-10-2 | °C | 205 | |

FLAMMABILITY

| | | | | |
|--|----------------|-------|-----|--|
| Flame Behaviour (1,6 mm) | UL94 | Class | HB | |
| Glow Wire Flammability Index-GWFI (2 mm) | IEC 60695-2-12 | °C | 650 | |
| Oxygen index | ASTM D2863 | % | 20 | |

INJECTION MOULDING

| | Value |
|--------------------------------------|-------------|
| Drying Temperature (Desiccant Dryer) | 80 - 120°C |
| Drying Time (Desiccant Dryer) | 2 - 4 h |
| Suggested Max Moisture | < 0,04 |
| Suggested Max Re grind | < 20% |
| Melt Temperature | 235 - 260°C |
| Feed Temperature | 60°C |
| Rear Temperature | 235°C |
| Middle Temperature | 245°C |
| Front Temperature | 255°C |

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|-------------------------|--------------------------|
| Nozzle Temperature | 260°C |
| Mould Temperature | 60 - 100°C |
| Injection Rate | Medium to Fast |
| Injection Pressure | 40 - 100 MPa |
| Packing Pressure | 30 - 80 MPa |
| Back Pressure | 0,5 - 1 MPa |
| Screw Revolving Speed | 70 rpm @ Diameter 60 mm |
| Screw Revolving Speed | 95 rpm @ Diameter 45 mm |
| Screw Revolving Speed | 140 rpm @ Diameter 30 mm |
| Screw Revolving Speed | 220 rpm @ Diameter 20 mm |
| Screw Revolving Speed | 300 rpm @ Diameter 15 mm |
| Cushion | 2 - 6 mm |
| Screw L/D Ratio | 18 - 22 |
| Screw Compression Ratio | 2:1 - 2,5:1 |
| Vent Depth | 0,02 mm |

Notes During processing, a dehumidifying hopper dryer is recommended at a temperature of 60 to 80°C. The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine or extruder size, part geometry and design.