*PRODUCT INFORMATION*

# TAROMID B 280 MT8

Polyamide 6 medium viscosity 40% mineral filled, good dimensional stability, uniform shrinkage in all directions, good surface appearance, mechanical and thermal properties.

**ISO short** ISO 1043: PA6-MD40
**Form** Pellets

## Key Features

- Designed for injection moulding applications
- Good flowability
- Mineral filled

## Availability

- W: lubricated
- LP: laser printable
- L: UV stabilized
- HT: high resistance to heat
- H: heat stabilized
- All colours

## Process

- INJECTION MOULDING

## Application

- Electronic
- Electrical
- Automotive

| Property | Method | Unit | Value | Condition | State |
|---|---|---|---|---|---|
| **ELECTRICAL** | | | | | |
| Volume Resistivity | IEC 60093 | Ohm cm | 10E(15) | | Dry |
| Dielectric Strength | IEC 60243-1 | kV/mm | 28 | 2 mm | Dry |
| Tracking Resistance (CTI - Method A) | IEC 60112 | Volt | 600 | | |
| **PHYSICAL** | | | | | |
| Density (+23°C) | ISO 1183 | g/cm^3 | 1,47 | | |
| Filler content | ISO 3451 | % | 40 | 750°C - 1 h | |
| Granule Humidity | Internal method | % | < 0,10 | | |
| Water Absorption (24h / +23°C) | ISO 62 | % | 0,8 | | |
| Water Absorption at Saturation | ISO 62 | % | 5,5 | | |
| Mould Shrinkage (Parallel) | Internal method | % | 0,3 - 0,6 | | |

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| | | | | | |
|---|---|---|---|---|---|
| Mould Shrinkage (Normal) | Internal method | % | 0,3 - 0,6 | | |
| Melting temperature (DSC) | ISO 11357 | °C | 222 | | |
| **MECHANICAL** | | | | | |
| Tensile Modulus | ISO 527-1,2 | MPa | 2300 | Speed 1 mm/min | Cond. |
| Tensile Modulus | ISO 527-1,2 | MPa | 6100 | Speed 1 mm/min | Dry |
| Elongation at Break | ISO 527-1,2 | % | 10 | Speed 50 mm/min | Cond. |
| Elongation at Break | ISO 527-1,2 | % | 2,4 | Speed 50 mm/min | Dry |
| Tensile Break Strength | ISO 527-1,2 | MPa | 57 | Speed 50 mm/min | Cond. |
| Tensile Break Strength | ISO 527-1,2 | MPa | 85 | Speed 50 mm/min | Dry |
| Flexural Modulus | ISO 178 | MPa | 5800 | Speed 1 mm/min | Dry |
| Flexural Break Strength | ISO 178 | MPa | 130 | Speed 1 mm/min | Dry |
| IZOD Notched Impact (+23°C) | ISO 180/1A | kJ/m^2 | 4,5 | | Dry |
| IZOD Notched Impact (+23°C) | ASTM D256 | J/m | 42 | | Dry |
| CHARPY Notched Impact (+23°C) | ISO 179/1eA | kJ/m^2 | 3,0 | | Dry |
| CHARPY Unnotched Impact (+23°C) | ISO 179/1eU | kJ/m^2 | 28 | | Dry |
| **THERMAL** | | | | | |
| Softening Temperature - 5 kg (VST/B/50) | ISO 306 | °C | 210 | 50°C / h | |
| Deflection Temperature 1,80 MPa (HDT A) | ISO 75A | °C | 170 | 120°C / h | |
| Ball Pressure Test | IEC 60695-10-2 | °C | 180 | | |
| Continuous service temperature (20.000 h) | UL746 B | °C | 110 | H version | |
| Continuous service temperature (20.000 h) | UL746 B | °C | 70 | | |
| Continuous service temperature (short term) | UL746 B | °C | 150 | H version | |
| Continuous service temperature (short term) | UL746 B | °C | 100 | | |
| Coefficient of linear thermal expansion (parallel) | ISO 11359-1,-2 | K^-1 | 4,5X10E(-5) | -30°C /+30°C | |
| Thermal Conductivity | ISO 8302 | W /(m K) | 0,27 | | |
| **FLAMMABILITY** | | | | | |
| Flame Behaviour (1,6 mm) | UL94 | Class | HB | | |

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| | | | | |
|---|---|---|---|---|
| Glow Wire Flammability Index-GWFI (2 mm) | IEC 60695-2-12 | °C | 750 | |
| Burning Rate (US-FMVSS 302) | ISO 3795 | mm/min | < 100 | Thickness > 1,5 mm |
| Oxigen index | ASTM D2863 | % | 24 | |

| INJECTION MOULDING | Value |
|---|---|
| Drying Temperature (Circulating Air Oven) | 80 - 90°C |
| Drying Temperature (Desiccant Dryer) | 80 - 90°C |
| Drying Time (Circulating Air Oven) | 3 - 6 h |
| Drying Time (Desiccant Dryer) | 2 - 4 h |
| Suggested Max Moisture | < 0,08 |
| Suggested Max Regrind | < 15% |
| Melt Temperature | 240 - 270°C |
| Feed Temperature | 230°C |
| Rear Temperature | 240°C |
| Middle Temperature | 255°C |
| Front Temperature | 260°C |
| Nozzle Temperature | 255°C |
| Mould Temperature | 70 - 90°C |
| Injection Rate | Medium |
| Injection Pressure | 40 - 100 Mpa |
| Packing Pressure | 30 - 80 Mpa |
| Back Pressure | 5 - 10 Mpa |
| Screw Revolving Speed | 50 - 100 rpm |
| Cushion | 2 - 6 mm |
| Screw L/D Ratio | 18 - 22 |
| Screw Compression Ratio | 2 - 2,5 |
| Vent Depth | 0,02 mm |

**Notes** During processing, a dehumidifying hopper dryer is recommended at a temperature of 60 to 80°C.