



PRODUCT INFORMATION

TAROMID B 280 G5 X0

Polyamide 6 medium viscosity 25% glass fibres reinforced, flame retardant UL94 V0, heat stabilized, good flame proofing also at low thickness, good flow and good mechanical properties.

ISO short Form ISO 1043: PA6-GF25 FR(17)
UL file Pellets
 E143048

Key Features

- Designed for injection moulding applications
- Improved heat resistance
- Glass fibres reinforced
- Flame retardant

Availability

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

Compliance

- UL94 V0 approved all colours at 0,97 mm. UL746 B approved.

Process

- INJECTION MOULDING

Application

- General purpose applications
- Electronic
- Electrical

| Property | Method | Unit | Value | Condition | State |
|--------------------------------------|-----------------|-------------------|-----------|-------------|-------|
| ELECTRICAL | | | | | |
| Volume Resistivity | IEC 60093 | Ohm cm | 10exp(15) | | |
| Tracking Resistance (CTI - Method A) | IEC 60112 | Volt | 325 | | |
| PHYSICAL | | | | | |
| Density (+23°C) | ISO 1183 | g/cm ³ | 1,56 | | |
| Filler content | ISO 3451 | % | 25 | 850°C - 1 h | |
| Granule Humidity | Internal method | % | <0,10 | | |
| Water Absorption (24h / +23°C) | ISO 62 | % | 1,5 | | |
| Water Absorption at Saturation | ISO 62 | % | 7,0 | | |
| Mould Shrinkage (Parallel) | Internal method | % | 0,30-0,40 | | |
| Mould Shrinkage (Normal) | Internal method | % | 0,40-0,80 | | |
| Melting temperature (DSC) | ISO 11357 | °C | 222 | | |

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MECHANICAL

| | | | | | |
|-------------------------------|-------------|-------------------|------|-----------------|-----|
| Tensile Modulus | ISO 527-1,2 | MPa | 8400 | Speed 1 mm/min | Dry |
| Elongation at Break | ISO 527-1,2 | % | 2,6 | Speed 50 mm/min | Dry |
| Tensile Break Strength | ISO 527-1,2 | MPa | 125 | Speed 50 mm/min | Dry |
| Flexural Modulus | ISO 178 | MPa | 8000 | Speed 1 mm/min | Dry |
| Flexural Break Strength | ISO 178 | MPa | 170 | Speed 1 mm/min | Dry |
| IZOD Notched Impact | ASTM D256 | J/m | 105 | +23°C | Dry |
| CHARPY Notched Impact (+23°C) | ISO 179/1eA | kJ/m ² | 10 | | Dry |

THERMAL

| | | | | |
|--|----------------|-----------------|---------------|--------------|
| Softening Temperature - 1 kg (VST/A/50) | ISO 306 | °C | 214 | 50°C / h |
| Softening Temperature - 5 kg (VST/B/50) | ISO 306 | °C | 209 | 50°C / h |
| Deflection Temperature 1,80 MPa (HDT A) | ISO 75A | °C | 204 | 120°C / h |
| Ball Pressure Test | IEC 60695-10-2 | °C | 170 | |
| Continuous service temperature (20.000 h) | UL746 B | °C | 120 | |
| Continuous service temperature (short term) | UL746 B | °C | 160 | |
| Coefficient of linear thermal expansion (parallel) | ISO 11359-1,-2 | K ⁻¹ | 3,5x10exp(-5) | -30°C /+30°C |

FLAMMABILITY

| | | | | |
|--|----------------|-------|-----|-------------|
| Flame Behaviour (0,97 mm) | UL94 | Class | V0 | UL approved |
| Glow Wire Flammability Index-GWFI (1 mm) | IEC 60695-2-12 | °C | 960 | |
| Glow Wire Ignition Temperature-GWIT (1,6 mm) | IEC 60695-2-13 | °C | 850 | |
| Oxygen index | ASTM D2863 | % | 30 | |

INJECTION MOULDING

| | Value |
|--------------------------------------|-------------|
| Drying Temperature (Desiccant Dryer) | 80 - 90°C |
| Drying Time (Desiccant Dryer) | 2 - 4 hours |
| Suggested Max Moisture | 0,08 % |
| Suggested Max Re grind | < 10 % |
| Melt Temperature | 230 - 260°C |
| Feed Temperature | 210°C |

The listed data are in the normal range of product properties, they should not be used to establish specification nor as the basis of design. Values are valid for natural coloured version only.

Unless specified to the contrary, the given values have been established on standardized test specimens at room temperature. These values are for natural colour only. The figures should be regarded as guide values only and not as binding minimum values. Please note that, under certain conditions, the properties can be affected to a considerable extent by the design of the mold/die, the processing conditions, pigments and any other additives.

All information, recommendation or technical advice provided by TARO PLAST S.p.A. are given in good faith but without warranty, to the best of its knowledge and based on current procedures in effect. Our advice does not release you from the obligation to check its validity and to test our products as to their suitability for the intended processes and uses. The application, use and processing methods and conditions of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely under your own responsibility.



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| | |
|-------------------------|----------------|
| Rear Temperature | 235°C |
| Middle Temperature | 245°C |
| Front Temperature | 255°C |
| Nozzle Temperature | 250°C |
| Mould Temperature | 70 - 100°C |
| Injection Rate | Medium to Fast |
| Injection Pressure | 3 - 12 Mpa |
| Packing Pressure | 5 - 15 Mpa |
| Screw Revolving Speed | 50 - 100 rpm |
| Cushion | > 3 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.