



PRODUCT INFORMATION

TAROMID A 280 G7 Y0

Polyamide 66 medium viscosity 35% glass fibres reinforced, heat stabilized, halogen free flame retardant UL94 V0, good flow, high electrical and mechanical properties, high dimensional stability.

ISO short Form ISO 1043: PA66-GF35 FR(40)
Form Pellets
UL file E143048

Key Features

- High mechanical properties
- Designed for injection moulding applications
- Halogen free
- Flame retardant
- Antimony trioxide free

Availability

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

Compliance

- UL94 V0 approved all colours at 0,85-1,5 and 3,0 mm. UL746 B approved. UL746 A (CTI-GWIT-GWFI) approved.

Process

- INJECTION MOULDING

Application

- Electronic
- Electrical

| Property | Method | Unit | Value | Condition | State |
|--------------------------------------|-----------------|-------------------|-----------|---------------------|-------|
| ELECTRICAL | | | | | |
| Tracking Resistance (CTI - Method A) | IEC 60112 | Volt | 600 | UL746 A CTI class 0 | |
| PHYSICAL | | | | | |
| Density (+23°C) | ISO 1183 | g/cm ³ | 1,45-1,47 | | |
| Granule Humidity | Internal method | % | <0,15 | | |
| Water Absorption (24h / +23°C) | ISO 62 | % | 0,5 | | |
| Water Absorption at Saturation | ISO 62 | % | 4,8 | | |
| Mould Shrinkage (Parallel) | Internal method | % | 0,30-0,50 | | |
| Mould Shrinkage (Normal) | Internal method | % | 0,45-0,75 | | |
| Melting temperature (DSC) | ISO 11357 | °C | 256 | | |
| MECHANICAL | | | | | |

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|---------------------------------|-------------|-------------------|-------|-----------------|-----|
| Tensile Modulus | ISO 527-1,2 | MPa | 10000 | Speed 1 mm/min | Dry |
| Elongation at Break | ISO 527-1,2 | % | 2,2 | Speed 50 mm/min | Dry |
| Tensile Break Strength | ISO 527-1,2 | MPa | 150 | Speed 50 mm/min | Dry |
| Flexural Modulus | ISO 178 | MPa | 9600 | Speed 1 mm/min | Dry |
| Flexural Max Strength | ISO 178 | MPa | 220 | Speed 1 mm/min | Dry |
| IZOD Notched Impact | ASTM D256 | J/m | 90 | +23°C | Dry |
| CHARPY Notched Impact (+23°C) | ISO 179/1eA | kJ/m ² | 8,5 | | Dry |
| CHARPY Unnotched Impact (+23°C) | ISO 179/1eU | kJ/m ² | 38 | | Dry |

THERMAL

| | | | | |
|--|----------------|-----------------|-------------|---------------|
| Softening Temperature - 5 kg (VST/B/50) | ISO 306 | °C | 247 | 50°C / h |
| Deflection Temperature 1,80 MPa (HDT A) | ISO 75A | °C | 245 | 120°C / h |
| Ball Pressure Test | IEC 60695-10-2 | °C | 230 | |
| Continuous service temperature (20.000 h) | UL746 B | °C | 130 | |
| Continuous service temperature (short term) | UL746 B | °C | 160 | |
| Coefficient of linear thermal expansion (parallel) | ISO 11359-1,-2 | K ⁻¹ | 3x10exp(-5) | -30°C / +30°C |

FLAMMABILITY

| | | | | |
|-------------------------------------|----------------|-------|-----|-----------------------|
| Flame Behaviour (0,85 mm) | UL94 | Class | V0 | UL approved |
| Flame Behaviour (1,5 mm) | UL94 | Class | V0 | UL approved |
| Flame Behaviour (3,0 mm) | UL94 | Class | V0 | UL approved |
| Glow Wire Flammability Index-GWFI | IEC 60695-2-12 | °C | 960 | UL approved at 3,0 mm |
| Glow Wire Ignition Temperature-GWIT | IEC 60695-2-13 | °C | 775 | UL approved at 3,0 mm |

INJECTION MouldING

| | Value |
|--------------------------------------|-------------|
| Drying Temperature (Desiccant Dryer) | 80 - 90°C |
| Drying Time (Desiccant Dryer) | 2 - 4 h |
| Suggested Max Moisture | 0,02 % |
| Suggested Max Re grind | < 10 % |
| Melt Temperature | 260 - 290°C |
| Feed Temperature | 230°C |



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|-------------------------|------------------------------------|
| Rear Temperature | 260°C |
| Middle Temperature | 270°C |
| Front Temperature | 280°C |
| Nozzle Temperature | 270°C |
| Mould Temperature | 70 - 90°C |
| Injection Rate | Medium to Fast |
| Injection Pressure | 40 - 100 Mpa |
| Packing Pressure | 25 - 75 Mpa |
| Back Pressure | As low as possible (0,3 - 0,6 MPa) |
| Screw Revolving Speed | 25 - 50 rpm |
| Screw Revolving Speed | 50 rpm @ Diameter 40 mm |
| Screw Revolving Speed | 35 rpm @ Diameter 55 mm |
| Screw Revolving Speed | 25 rpm @ Diameter 75 mm |
| Cushion | 3 - 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.