



PRODUCT INFORMATION

TARODUR 100 X0

ABS flame retardant UL94 V0, good mechanical properties, good flow and surface appearance, without blooming.

Form Pellets
UL file E143048

Key Features

- Designed for injection moulding applications
- Flame retardant
- Good surface aspect

Availability

- L: UV stabilized
- H: heat stabilized
- All colours
- AS: antistatic

Compliance

- UL94 V0 all colours approved at 1,6 mm.
- European Directive 2011/65/EU (RoHS 2)
- European Regulation No. 1907/2006/EU (REACH - Substances of very high concern, SVHC)

Process

- INJECTION MOULDING

Application

- Electronic
- Electrical
- Covering

| Property | Method | Unit | Value | Condition | State |
|--------------------------------------|-----------------|-------------------|-------------|---------------|-------|
| ELECTRICAL | | | | | |
| Volume Resistivity | IEC 60093 | Ohm cm | 10exp(15) | | |
| Tracking Resistance (CTI - Method A) | IEC 60112 | Volt | > 400 | | |
| PHYSICAL | | | | | |
| Density (+23°C) | ISO 1183 | g/cm ³ | 1,19 - 1,21 | | |
| Water Absorption (24h / +23°C) | ISO 62 | % | 0,3 | | |
| Water Absorption at Saturation | ISO 62 | % | 0,7 | | |
| Mould Shrinkage (Parallel) | Internal method | % | 0,5 - 0,7 | | |
| Mould Shrinkage (Normal) | Internal method | % | 0,5 - 0,7 | | |
| Melt Flow Rate (MFR) | ISO 1133 | g/10 min | 35 | 220°C - 10 kg | |

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.

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MECHANICAL

| | | | | |
|-------------------------------|-------------|-------------------|------|-----------------|
| Tensile Modulus | ISO 527-1,2 | MPa | 2700 | Speed 1 mm/min |
| Tensile Yield Strength | ISO 527-1,2 | MPa | 46 | Speed 50 mm/min |
| Elongation at Break | ISO 527-1,2 | % | 10 | Speed 50 mm/min |
| Flexural Modulus | ISO 178 | MPa | 2500 | Speed 1 mm/min |
| Flexural Max Strength | ISO 178 | MPa | 70 | Speed 1 mm/min |
| IZOD Notched Impact (+23°C) | ASTM D256 | J/m | 120 | |
| IZOD Notched Impact (-25°C) | ASTM D256 | J/m | 45 | |
| CHARPY Notched Impact (+23°C) | ISO 179/1eA | kJ/m ² | 10 | |

THERMAL

| | | | | |
|--|----------------|-----------------|---------------|-----------------------|
| Softening Temperature - 1 kg (VST/A/50) | ISO 306 | °C | 95 | 50°C / h |
| Softening Temperature - 5 kg (VST/B/50) | ISO 306 | °C | 90 | 50°C / h |
| Deflection Temperature 1,80 MPa (HDT A) | ISO 75A | °C | 80 | Unannealed, 120°C / h |
| Ball Pressure Test | IEC 60695-10-2 | °C | 75 | |
| Continuous service temperature | UL746 B | °C | 60 | |
| Coefficient of linear thermal expansion (parallel) | ISO 11359-1,-2 | K ⁻¹ | 5,5x10exp(-5) | -30°C /+30°C |

FLAMMABILITY

| | | | | |
|--|----------------|-------|--------|-------------|
| Flame Behaviour (1,6 mm) | UL94 | Class | V0 | UL approved |
| Glow Wire Flammability Index-GWFI (2 mm) | IEC 60695-2-12 | °C | 960 | |
| Oxygen index | ASTM D2863 | % | 27 | |
| Needle flame test (1,6 mm) | IEC 60695-11-5 | - | PASSED | |

INJECTION MOULDING

| | Value |
|---|-------------|
| Drying Temperature (Circulating Air Oven) | 70 - 80°C |
| Drying Temperature (Desiccant Dryer) | 70 - 80°C |
| Drying Time (Circulating Air Oven) | 2 - 4 h |
| Drying Time (Desiccant Dryer) | 1 - 2 h |
| Suggested Max Re grind | < 15% |
| Melt Temperature | 220 - 250°C |

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| | |
|-------------------------|--------------------|
| Feed Temperature | 180°C |
| Rear Temperature | 210°C |
| Middle Temperature | 220°C |
| Front Temperature | 230°C |
| Nozzle Temperature | 240°C |
| Mould Temperature | 50 - 80°C |
| Injection Rate | Medium to fast |
| Back Pressure | 0,2 - 0,5 Mpa |
| Screw Revolving Speed | As low as possible |
| Cushion | 3 - 6 mm |
| Screw Compression Ratio | 2:1 - 3:1 |

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

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