



Technical data sheet

RavaSafe® ZH-LSF 61F WT

RavaSafe® ZH-LSF 61F WT is a thermoplastic zero halogen, low smoke flame retardant compound designed for indoor/outdoor optical fiber cables sheathing.

This compound combines excellent processing, good mechanical properties and allows low friction surface.

This solution is UV stabilized, has a very good chemical resistance and good low temperature behavior.

Technical properties:

| Physical and Mechanical Properties | Typical Value | Units (SI) | Test Method |
|---|---------------|--------------------|------------------------|
| Density, 23°C | 1,53 | g/cm ³ | ISO 1183-1 (ASTM D792) |
| Melt flow index (150°C /21,6kg) | 4,0 | g/10 min | ISO 1133 (b) |
| Hardness (15 seconds) | 48 | Shore D | ISO R 868 (ASTM D2240) |
| Water immersion test (7d @ 70°C) | 0,5 | mg/cm ² | IEC 60811-402 |
| Tear strength 23°C | 4,4 | N/mm | BS 6469-99.1 |
| <i>Unaged mechanical properties (200 mm/min)</i> | | | |
| Tensile strength | 11,5 | MPa | IEC 60811-501 |
| Elongation at break | 156 | % | |
| <i>Thermal ageing 7 days at 120°C</i> | | | |
| Tensile strength variation (Δ) | 6 | % | IEC 60811-501 |
| Elongation at break variation (Δ) | -10 | % | |
| <i>Thermal Mechanical Properties</i> | | | |
| Hot Pressure Deformation (6h @ 90°C) | < 50 | % | IEC 60811-508 |
| Elongation at break (-40°C) | > 30 | % | IEC 60811-505 |
| <i>Oil resistance test 4h at 70°C (IRM 902 – immersion)</i> | | | |
| Tensile strength variation (Δ) | -35 | % | IEC 60811-404 |
| Elongation at break variation (Δ) | -22 | % | |

| Flammability | Typical Value | Units (SI) | Test Method |
|--|---------------|------------|-------------------------|
| Oxygen Index | 39 | % | ISO 4589-2 (ASTM D2863) |
| Temperature Index | > 310 | °C | ISO 4589-3 |
| Halogen content | < 0,5 | % | IEC 60754-1 |
| <i>Acid gas emission</i> | | | |
| pH | > 4,3 | / | IEC 60754-2 |
| Conductivity | < 2,5 | μS/mm | IEC 60754-1 |
| <i>Smoke density measurement</i> | | | |
| Smoke density – Flaming mode (1,1 mm) Ds max | 71 | | ASTM E 662 |
| Smoke density – Non Flaming mode (1,1 mm) Ds max | 143 | / | |

Recommended extrusion profile:

| Extrusion Temperatures | Zones | | | | | | | |
|------------------------|-------|-------|-------|-------|-------|--------|-------|-------|
| | Z1 | Z2 | Z3 | Z4 | Z5 | Collar | Head | Die |
| Temperature (Imperial) | 266°F | 284°F | 302°F | 320°F | 320°F | 329°F | 338°F | 338°F |
| Temperature (SI) | 130°C | 140°C | 150°C | 160°C | 160°C | 165°C | 170°C | 170°C |

RavaSafe® ZH-LSF 61F WT is a product able to run on standard extruders, based on low compression screw and head. This compound is supplied in aluminium foil bags. Pre-drying is not required before extrusion process.

RavaSafe® ZH-LSF 61F WT is in white color.