



TECHNICAL DATA SHEET

RavaSAFE ZH- LSF 5P

Product Description:

Ravasafe ZH-LSF 5P is a flame retardant thermoplastic zero halogen, low smoke flame retardant compound designed for thin wall insulation Optical Fibers Cables application.

Ravasafe ZH-LSF 5P combines excellent processing, good flame retardancy and mechanical properties in accordance with application.

Ravasafe ZH-LSF 5P is an easy peel solution.

Technical Properties:

Physical Properties	Typical Value (Imperial)	Typical Value (SI)	Test Method
Density, 23°C	1.49 g/cm ³	1.49 g/cm ³	ISO 1183-1 (ASTM D792)
MFR (150°C /21.6kg)	22.0 g/10min	22.0 g/10min	ISO 1133 (b)
Hardness Shore D 15 seconds	40	40	ISO R 868 (ASTM D2240)
Pressure test at high temperature 6h @ 90°C	7.7%	7.7%	IEC 60811-508
Water immersion test 24h @ 70°C	3.2 mg/cm ²	3.2 mg/cm ²	IEC 60811-402
Mechanical Properties	Typical Value (Imperial)	Typical Value (SI)	Test Method
Unaged mechanical properties (200 mm/min) <i>Tensile Strength</i> <i>Elongation at break</i>	1088 psi 36%	7.5 MPa 36%	IEC 60811-501
Thermal ageing 7 days @ 100°C <i>Tensile strength retention</i> <i>Elongation at break retention</i>	117% 125%	117% 125%	IEC 60811-401
Thermal ageing 7 days @ 110°C <i>Tensile strength retention</i> <i>Elongation at break retention</i>	127% 113%	127% 113%	IEC 60811-401
Thermal ageing 7 days @ 120°C <i>Tensile strength retention</i> <i>Elongation at break retention</i>	134% 136%	134% 136%	IEC 60811-401
Tear strength 23°C (N/mm)	7.1 N/mm	7.1 N/mm	BS 6469-99.1

Flammability	Typical Value (Imperial)	Typical Value (SI)	Test Method
Oxygen Index	33%	33%	ISO 4589-2 (ASTM D2863)
Temperature Index	312°C	312°C	ISO 4589-3
Halogen content	< 0.5%	< 0.5%	IEC 60754-1
Acid gas emission pH value Conductivity (max.)	5.23 0.93 µS/mm	5.23 0.93 µS/mm	IEC 60754-2
Smoke density – Flaming mode (1.1mm) Ds max	79.3	79.3	ASTM E 662
Smoke density – Non Flaming mode (1.1mm) Ds max	269.4	269.4	ASTM E 662

Recommended extrusion profile:

Extrusion	Cylinder Temperatures							
	Z1	Z2	Z3	Z4	Z5	Adapter	Head	Die
Temperature (Imperial)	230°F	284°F	302°F	311°F	311°F	329°F	329°F	338°F
Temperature (SI)	110°C	140°C	150°C	155°C	155°C	165°C	165°C	170°C

RavaSafe ZH LSF 5P is a product able to run on standard extruders, based on low compression screw and head.

Compounds are supplied in Aluminium foil bags. Pre-drying is not required before extrusion process.

All compounds are colorable compounds. A full range of specific color masterbatches (RAVACOLOR™) and additive masterbatches (RAVABOOST™) are available for RAVASAFE ZH-LSF compounds.

For any further information, please contact Ravago W&C.