

RavaSafe® ZH-LSF 1 UV is a thermoplastic zero halogen, low smoke flame retardant compound designed for general purpose sheathing application.

This solution combines excellent processing and good mechanical properties with UV stabilization.

Typical Application: OFC/DATA/LAN/telecom/HM4/IEC 60332-1, single flame test, general purpose sheathing with great line speed.

Standard norms (type of material) : EN 50363 (TM7), VDE 0207 / 0250 (HM2, HM4), BS 7655 (LTS 2), IEC 60502 (ST8) and IEC 60092-360 (SHF1)

Technical properties:

Physical and Mechanical Properties	Typical Value	Units (SI)	Test Method
Density, 23°C	1,51	g/cm³	ISO 1183-1 (ASTM D792)
Melt flow index (150°C /21,6kg)	4,5	g/10 min	ISO 1133 (b)
Hardness (15 seconds)	48	Shore D	ISO R 868 (ASTM D2240)
Water immersion test (7d @ 70°C)	1,3	mg/cm²	IEC 60811-402
Tear strength 23°C	8	N/mm	BS 6469-99.1
Unaged mechanical properties (200 mm/min)			
Tensile strength	11	MPa	IEC 60811-501
Elongation at break	170	%	
Thermal ageing 7 days at 120°C			
Tensile strength variation (Δ)	17	%	IEC 60811-501
Elongation at break variation (Δ)	- 9	%	
Thermal Mechanical Properties			
Hot Pressure Deformation (6h @ 90°C)	< 50	%	IEC 60811-508
Oil resistance test 4h at 70°C (IRM 902 – immersion)			
Tensile strength variation (Δ)	- 13	%	IEC 60811-404
Elongation at break variation (Δ)	17	%	

UV – Resistance – UV SEPAP	Typical Value	Units (SI)	Test Method
Cycle 1 / UVA 340 nm / 1000 hours			
Tensile strength variation 0 to 1000 hours (Δ)	1	%	ISO 4892-3
Elongation at break variation after 1000 hours	- 39	%	
Cycle 1 / Xenon lamp / 720 hours			
Tensile strength variation 0 to 1000 hours (Δ)	7	%	ISO 4892-2
Elongation at break variation after 1000 hours	4	%	

Flammability	Typical Value	Units (SI)	Test Method
Oxygen Index	37	%	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

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 1 UV 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 1 UV is colorable. A full range of specific color masterbatches (RAVACOLOR™) and additive masterbatches (RAVABOOST™) are available.

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

The material description is subject to changes during the validation period of the product.

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