

RavaSafe® ZH-LSF 32 is a thermoplastic zero halogen, low smoke flame retardant compound designed for general purpose sheathing applications.

This solution is designed for cable construction demanding mechanical properties, good process and high flame retardancy to target the most challenging requirements.

Typical Application: Telecom, Low and Medium power cable application

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	1,54	g/cm³	ISO 1183-1 (ASTM D792)
Melt flow index (150°C /21,6kg)	8,6	g/10 min	ISO 1133 (b)
Hardness (15 seconds)	44	Shore D	ISO R 868 (ASTM D2240)
Water immersion test (7d @ 70°C)	1,2	mg/cm²	IEC 60811-402
Tear strength 23°C	5,1	N/mm	BS 6469-99.1
Unaged mechanical properties (200 mm/min)			
Tensile strength	11,6	MPa	IEC 60811-501
Elongation at break	160	%	
Thermal ageing 7 days at 120°C			
Tensile strength variation (Δ)	6	%	IEC 60811-501
Elongation at break variation (Δ)	-12	%	
Thermal Mechanical Properties			
Hot Pressure Deformation (6h @ 90°C)	< 50	%	IEC 60811-508
Elongation at break (-15°C)	> 100	%	IEC 60811-505
Elongation at break (-40°C)	> 30	%	IEC60811-505

Flammability	Typical Value	Units (SI)	Test Method
Oxygen Index	41	%	ISO 4589-2 (ASTM D2863)
Temperature Index	>330	°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 (1,2 mm) Ds max	93	/	ASTM E 662
Smoke density – Non Flaming mode (1,2 mm) Ds max	164	/	

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 32 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 32 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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