

RavaSafe® ZH-LSF 321 UV BK is a thermoplastic zero halogen, low smoke flame retardant compound designed for high flame retardancy sheathing applications to target the most fire challenging requirements.

This solution combines easy process, good mechanical properties and a robust and cohesive char formation during fire with UV stabilization and colored in Black RAL 9005.

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)	6	g/10 min	ISO 1133 (b)
Hardness (15 seconds)	48	Shore D	ISO R 868 (ASTM D2240)
Water immersion test (24h @ 70°C)	1,5	mg/cm²	IEC 60811-402
Tear strength 23°C	4,6	N/mm	BS 6469-99.1
Unaged mechanical properties (200 mm/min)			
Tensile strength	11	MPa	IEC 60811-501
Elongation at break	140	%	
Thermal ageing 7 days at 120°C			
Tensile strength variation (Δ)	- 2	%	IEC 60811-501
Elongation at break variation (Δ)	-13	%	
Thermal Mechanical Properties			
Hot Pressure Deformation (6h @ 90°C)	< 50	%	IEC 60811-508
Elongation at break (-40°C)	> 20	%	IEC60811-505

Flammability	Typical Value	Units (SI)	Test Method
Oxygen Index	41	%	ISO 4589-2 (ASTM D2863) IEC 60754-1
Halogen content	< 0,5	%	
Acid gas emission			
pH	> 4,3	/	IEC 60754-2
Conductivity	< 2,5	μS/mm	IEC 60754-1
Smoke density measurement			
Smoke density – Flaming mode (1,2 mm) Ds max	67	/	ASTM E 662
Smoke density – Non Flaming mode (1,2 mm) Ds max	217	/	

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 321 UV BK 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.

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

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

This product information is based on our general experience and does not constitute a specification. Since many factors affect the use of our products, no warranty is given or implied with respect to this information or patent infringement. We do not accept liability for any loss or damage arising from the use of this information. All sales are subject to our Standard Terms and Conditions of Sale.