

RavaSafe® ZH-LSF 4Z2 is a thermoplastic zero halogen, low smoke flame retardant compound designed for high mechanical properties sheathing.

This solution is UV stabilized and has a good low and high temperature behavior.

Technical features: DMZ-2, DMO-2 and ST12

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)	3	g/10 min	ISO 1133 (b)
Hardness (15 seconds)	45	Shore D	ISO R 868 (ASTM D2240)
Water immersion test (7d @ 70°C)	0,1	mg/cm²	IEC 60811-402
Water immersion test (14d @ 85°C)	1,06	mg/cm²	IEC 60811-402
Tear strength 23°C	19,4	N/mm	BS 6469-99.1
Unaged mechanical properties (200 mm/min)			
Tensile strength	> 13	MPa	IEC 60811-501
Elongation at break	> 400	%	
Thermal ageing 7 days at 120°C			
Tensile strength variation (Δ)	16	%	IEC 60811-501
Elongation at break variation (Δ)	-15	%	
Thermal ageing 10 days at 110°C			
Tensile strength variation (Δ)	> 15	%	IEC 60811-501
Elongation at break variation (Δ)	> 300	%	
Thermal Mechanical Properties			
Hot Pressure Deformation (6h @ 90°C)	< 50	%	IEC 60811-508
Hot Pressure Deformation (6h @ 110°C)	< 50	%	IEC 60811-508
Loss of mass (7d @ 100°C)	0,01	mg/cm²	IEC 60811-409
Shrinkage (5h @ 80°C)	0,2	%	IEC 60811-502 & 503
Elongation at break (-40°C)	> 60	%	IEC60811-505

Flammability	Typical Value	Units (SI)	Test Method
Oxygen Index	30	%	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

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)	140°C	150°C	160°C	170°C	170°C	175°C	180°C	180°C

RavaSafe® ZH-LSF 4Z2 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 4Z2 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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