



RavaSafe® ZH-LSF 61F

Ravago Manufacturing Europe - Thermoplastic

General Information

Product Description

RavaSafe® ZH-LSF 61F is a thermoplastic zero halogen, low smoke flame retardant compound designed for indoor/outdoor optical fiber cables sheathing.

This compound combines excellent processing, good mechanical properties and allows low friction surface.

This solution is UV stabilized, has a very good chemical resistance and good low temperature behavior.

General

Material Status	• Commercial: Active		
Availability	• Europe	• Latin America	• North America
Additive	• Flame Retardant • UV Stabilizer		
Features	• Chemical Resistant • Excellent Processability • Flame Retardant	• Halogen Free • Low Friction • Low Smoke Emission	• Low Temperature Resistant • UV Stabilized
Uses	• Wire & Cable Applications		
Appearance	• Colors Available		
Processing Method	• Extrusion		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.53	g/cm ³	ASTM D792
Density (23°C)	1.53	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) ² (150°C/21.6 kg)	4.2	g/10 min	ISO 1133
Water Immersion - 7d (70°C)	0.500	mg/cm ²	IEC 60811-402
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress ³	11.7	MPa	IEC 60811-501
Tensile Strain ³ (Break)	160	%	IEC 60811-501
Elastomers	Nominal Value	Unit	Test Method
Tear Strength (23°C)	4.40	kN/m	BS 6469 99.1
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, 15 sec)	48		ASTM D2240
Shore Hardness (Shore D, 15 sec)	48		ISO 868
Thermal	Nominal Value	Unit	Test Method
Temperature Index	> 310	°C	ISO 4589-3
Aging	Nominal Value	Unit	Test Method
Change in Tensile Stress			
70°C, 4 hr, in IRM 902 Oil	-35	%	IEC 60811-404
120°C, 168 hr	6.0	%	IEC 60811-501
Change in Tensile Strain at Break			
70°C, 4 hr, in IRM 902 Oil	-22	%	IEC 60811-404
120°C, 168 hr	-10	%	IEC 60811-501

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Flammability	Nominal Value	Unit	Test Method
Oxygen Index	39	%	ASTM D2863
Oxygen Index	39	%	ISO 4589-2
Acid Gas Emission Conductivity	< 2.50	µS/mm	IEC 60754-2
Acid Gas Emission pH	> 4.30		IEC 60754-2
Halogen Content	< 1	%	IEC 60754-1
Smoke Density ⁴			ASTM E662
Flaming mode : 1.10 mm	71		
Non Flaming mode : 1.10 mm	140		

Processing Information

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	130	°C
Cylinder Zone 2 Temp.	140	°C
Cylinder Zone 3 Temp.	150	°C
Cylinder Zone 4 Temp.	160	°C
Cylinder Zone 5 Temp.	160	°C
Adapter Temperature	165	°C
Head Temperature	170	°C
Die Temperature	170	°C

Extrusion Notes

RavaSafe® ZH-LSF 61F 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.

Notes

¹ Typical properties: these are not to be construed as specifications.

² Procedure B

³ 200 mm/min

⁴ Ds max