



RavaSafe® ZH-LSF 4Z2

Ravago Manufacturing Europe - Thermoplastic

General Information

Product Description

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

General

Material Status	• Commercial: Active		
Availability	• Europe	• Latin America	• North America
Additive	• Flame Retardant • UV Stabilizer		
Features	• Flame Retardant • Halogen Free	• High Heat Resistance • 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	1.51	g/cm ³	ASTM D792
Density (23°C)	1.51	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) ² (150°C/21.6 kg)	3.0	g/10 min	ISO 1133
Water Immersion			IEC 60811-402
14 days : 85°C	1.06	mg/cm ²	
7 days : 70°C	0.100	mg/cm ²	
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress ³	> 13.0	MPa	IEC 60811-501
Tensile Strain ³ (Break)	> 400	%	IEC 60811-501
Elastomers	Nominal Value	Unit	Test Method
Tear Strength (23°C)	19.4	kN/m	BS 6469 99.1
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, 15 sec)	45		ASTM D2240
Shore Hardness (Shore D, 15 sec)	45		ISO 868
Aging	Nominal Value	Unit	Test Method
Change in Tensile Stress			IEC 60811-501
110°C, 240 hr	> 15	%	
120°C, 168 hr	16	%	
Change in Tensile Strain at Break			IEC 60811-501
110°C, 240 hr	> 300	%	
120°C, 168 hr	-15	%	

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Flammability	Nominal Value	Unit	Test Method
Oxygen Index	30	%	ASTM D2863
Oxygen Index	30	%	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

Processing Information

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	140	°C
Cylinder Zone 2 Temp.	150	°C
Cylinder Zone 3 Temp.	160	°C
Cylinder Zone 4 Temp.	170	°C
Cylinder Zone 5 Temp.	170	°C
Adapter Temperature	175	°C
Head Temperature	180	°C
Die Temperature	180	°C

Extrusion Notes

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.

Notes

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

² Procedure B

³ 200 mm/min