

LSZH 104

LOW SMOKE ZERO HALOGEN (LSZH / HFFR) INSULATION / SHEATHING COMPOUND

Product Description:

LSZH 104 is a Low Smoke Zero Halogen (LSZH / HFFR / ZHFR) thermoplastic, Flame Retardant & UV Stabilized Compound for Insulation & Sheathing /Jacketing of various types of cables like Optic Fiber & Communication Cables, & Data Cables.

Product Profile:

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Specifications:

LSZH 104 compound meets the following specifications:

VDE 0207 PART 24 HM2 & HM 4 ICE 60332-1 / IEC 60332-2 /

BS 7655 LTS 1, 2 & 3 EN: 50363: 2005 Type TI 6 & TI 7 IEC 60092-SHF-1

Salient Features:

- Good Flow properties resulting in good extrusion & low amperage on the machine
- Good Thermal and Mechanical properties
- Good Crack resistance properties
- Good Flame retardant and low smoke properties

Technical Specifications Sheet

Properties	Test Method	Unit	Typical Value
a) Physical			
Density	ASTM D 792	gm/cc	1.47 +/- 0.02
MFI (21.6 kg @160°C)	ASTM D 1238	g/10 min	>7
b) Mechanical			
Hardness	ASTM D 2240	Shore D	50±2
Tensile Strength (250mm/min)	ASTM D 638	Mpa	Min 12
Elongation at Break (250mm/min)	ASTM D 638	%	>180
Variation in Tensile Properties After heat ageing (10 days at 100°C)			
• Tensile Strength	ASTM D 638	MPa	+10
• Elongation	ASTM D 638	%	-8

Properties	Test Method	Unit	Typical Value
c) Thermal			
Limiting Oxygen index	ASTM D 2863	%	Min 34
Temperature index	ASTM D 2863	°C	Min 280
Test on gases evolved during Combustion			
• pH	IEC 60754-2	-	>4.3
• Conductivity	IEC 60754-2	µs/mm	<10
Smoke density rating	ASTM D 2843	%	<20
Flame & Fire Propagation	EN 60332-1-2	-	Passes
Halogen Acid Gas Generation	IEC 60754-1	%	Nil
Hot Pressure Test (@ 90 °C for 4 Hours)	IEC – 60811 – 3- 1	%	<50
UV Resistance	IEC-60068-2-5	Hours	720
Flame & Fire Propagation	EN 60332-1-2	-	Passes
d) Electrical			
Volume Resistivity	ASTM D 257	Ω –cm	1 x 10 ¹⁵

Processing Parameters:

LSZH range of compounds is designed to perform on extruder with Low compression ratio screws meant for PE extrusion. However, it can also be used on PVC extruder with limitation on output. The recommended temperature for extruding LSZH compound is in the range of 130°C to 150°C for barrel and 150°C for cross head and 165°C for die. Extra caution must be exerted to see that the processing temperature does not exceed 170°C which will result in degradation material. Pre-drying of the compound is recommended at 70°C for 2 hours to obtain smooth processing of the cable and attaining good surface finish on the cable.

Color Options:

It is recommended to use RoHS compliant masterbatch for attaining the desired color for the cables which conforms to RAL color standards. We can also supply mass colored compound as per the RAL Shade (Natural/Black). We recommend to use Black compounded product for demanding outdoor application.

Packaging, Storage & Transport:

Package	Net Weight	25kgs-PP Laminated bags 500/1200 kgs –PP based Jumbo Bags
Transport	Requirement	Keep away from the sunshine, rain & soaking during transport, as well as handle gently while carrying.
Storage	Environment	Clean, dry and ventilated ware house

Technical Assistance:

Our technical team will be available for assistance on request.

RoHS Compliance:

LSZH 104 Compound is RoHS and REACH Compliance.

Revision 1: May 2023

Disclaimer:

The above-mentioned recommendations are derived after various trials and checks conducted under different conditions. It is advised that the above stated information must be used as guidelines only. We suggest that the customer conducts their own trials and arrive at the optimum processing parameters which are best suited for their equipment and processing conditions. Sankhla does not take any responsibility for any sort of loss arising due to improper handling or usage of materials supplied.

Sankhla Vinyl Pvt. Ltd.

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