

## LSZH 1002

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

#### Product Description:

LSZH 1002 is a Low Smoke Zero Halogen (LSZH / HFFR / ZHFR) thermoplastic, Flame Retardant Compound suitable for Insulation & Sheathing /Jacketing of various types of cables like Optic Fiber & Communication Cables, & Data Cables. It is RoHS and REACH compliant.

#### Product Profile:

LSZH 1002 is a polyolefin-based compound consisting of Polyolefin, Flame Retardants, Lubricants and additives. It exhibits good processing features and excellent Physical and Mechanical properties.

#### Salient Features:

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

#### Technical Specifications Sheet

Properties	Test Method	Unit	Typical Value
<b>a) Physical</b>			
Density	ASTM D 792	gm/cc	1.48 +/- 0.02
MFI (21.6 kg @160°C)	ASTM D 1238	g/10 min	>7
<b>b) Mechanical</b>			
Hardness	ASTM D 2240	Shore D	50±2
Tensile Strength (250mm/min)	ASTM D 638	Mpa	Min 11
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	+11
• Elongation	ASTM D 638	%	-14

Properties	Test Method	Unit	Typical Value
<b>c) Thermal</b>			
Limiting Oxygen index	ASTM D 2863	%	Min 31
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-c	-	Passes
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	-	Passes
<b>d) Electrical</b>			
Volume Resistivity	ASTM D 257	Ω –cm	1 x 10 <sup>15</sup>

#### 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 1002 Compound is RoHS Compliant.

Revision 1: May 2023

#### Disclaimer:

The above-mentioned recommendations are derived after various trails 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 trails 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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