

SANKHLA INDUSTRIES

Technical Specification of PVC Compound

Grade: FRLS 70 Z

Description: FRLS 70 Z conforms to Type A lead stabilized insulation of IS 5831 – 1984 for wire and cable applications. It is formulated with carefully selected PVC resins, Plasticizers, Stabilizers & other additives

Properties	unit	Test Method	SI 1199 Specification	Typical value *
Specific gravity	-	ASTM D 729	1.50 ± 0.02	1.49
Shore hardness	"A"	ASTM D 2240	90 ± 2	90
Before Ageing				
			IS 5831 Specification	Typical value **
Tensile strength	N/mm ²	IS 10810 Part 7	12.5 (min)	17.5
Elongation at break	%		150 (min)	260
After ageing @ 80°C ± 2°C for 7 days				
Tensile strength	N/mm ²	IS 10810 Part 11	12.5 (min)	18.73
Variation in Tensile strength	%		± 20	7
Elongation at break	%		150 (min)	239
Variation in Elongation	%		± 20	- 8
Thermal Stability @ 200°C ± 0. 5°C	Minutes	IS 10810 Part 60	80 (min)	> 80
Heat Shrinkage @ 150°C ± 2°C & Duration 15 minutes				
Shrinkage	%	IS 10810 Part 12	4 (max)	1.5
Volume Resistivity @ 27°C	Ohm-cm	IS 10810 Part 43	1x 10 ¹³ (min)	5 x 10 ¹³
Volume Resistivity @ 70°C	Ohm-cm		1x 10 ¹⁰ (min)	6 x 10 ¹⁰
Loss Of Mass In Air Oven @ 80°C ± 2°C for 7 days				
Loss of Mass	mg/cm ²	IS 10810 Part 10	2 (max)	0.9
FRLS TEST				
Oxygen Index	%	ASTM D 2863	29 (min)	31
Temperature index	°C		250 (min)	300
Smoke Density	%	ASTM D 2843	60 (max)	58.5
HCL Emission	%	IEC - 754	20 (max)	16

* Data evaluated on 25x25x4mm thick compression moulded block.

** Data evaluated on extruded sleeve of thickness between 0.8 – 1.2 mm / 1- 2 mm thick sheets.

Processing Techniques: FRLS 70 Z can be processed on any good PVC extruder with a temperature range of 160°C - 205°C and preheating the same up to 70°C is recommended to avoid moisture bubbles on end products.

Colouring: It can be coloured with 2 to 4% PVC compatible masterbatches without affecting end product properties.

Package Storage & Handling: FRLS 70 Z pellets should be packed in airtight laminated plastic bags of 25 Kg net weight and stored in a cool & dry place away from sunlight. Use of gloves and nose mask is recommended during manual handling.

Safety: FRLS 70 Z does not undergo hazardous decomposition under normal storage conditions. Static charges may be generated by conveying PVC pellets and, therefore, the conveying systems should be properly grounded.

Spillage: Vacuum cleaning.

Disposal: Waste PVC pellets should be disposed in accordance with local regulations.
The product is intended for industrial use only. MSDS is available on request.

Disclaimer: The above test results should be used only as a guideline. The material performance depends on different conditions of processing and fabrication. Consequently, users are advised to establish for themselves that the material is suitable for their end product requirements.

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