

# SANKHLA INDUSTRIES

## Technical Specification of PVC Compound

### Grade: SP300 IS FR

**Description:** SP 300 IS Flame Retardant 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	1.51
Shore hardness	"A"	ASTM D 2240	90 ± 2	90
<b>Before Ageing</b>			<b>IS 5831 Specification</b>	<b>Typical value**</b>
Tensile strength	N/mm <sup>2</sup>	IS 10810 Part 7	12.5 (min)	17
Elongation at break	%		150 (min)	250
<b>After ageing @ 80°C ± 2°C for 7 days</b>				
Tensile strength	N/mm <sup>2</sup>	IS 10810 Part 11	12.5 (min)	18.2
Variation in Tensile strength	%		± 20	7.1
Elongation at break	%		150 (min)	229
Variation in Elongation	%		± 20	- 8.4
<b>Thermal Stability @ 200°C ± 0. 5°C</b>	Minutes	IS 10810 Part 60	80 (min)	> 80
<b>Heat Shrinkage @ 150°C ± 2°C &amp; Duration 15 minutes</b>				
Shrinkage	%	IS 10810 Part 12	4 (max)	2
Volume Resistivity @ 27°C	Ohm-cm	IS 10810 Part 43	1x 10 <sup>13</sup> (min)	3 x 10 <sup>13</sup>
Volume Resistivity @ 70°C	Ohm-cm		1x 10 <sup>10</sup> (min)	5.5 x 10 <sup>10</sup>
<b>Loss Of Mass In Air Oven @ 80°C ± 2°C for 7 days</b>				
Loss Of Mass	mg/cm <sup>2</sup>	IS 10810 Part 10	2 (max)	1.2
<b>Flame Retardant Test</b>				
Oxygen index	%	ASTM D 2863	29 (min)	30.5
Temperature index	° C		250 (min)	275

\* 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:** SP 300 IS FR can be processed on any good PVC extruder with a temperature range of 140°C - 180°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:** SP300 IS FR 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:** SP300IS FR 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 there end product requirements.

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