

# SANKHLA INDUSTRIES

## Technical Specification of PVC Compound

### Grade: PS 14 HT 01 NL

**Description:** PS 14 HT 01 NL conforms to Type C Non - Lead stabilized insulation of IS 5831 – 1984 for wire and cable applications. It is formulated with carefully selected PVC resins, Plasticizers, Stabilizers and other additives.

Properties	unit	Test Method	SI 1300 Specification	Typical value *
Specific gravity	-	ASTM D 729	1.4 ± 0.02	1.4
Shore hardness	"A"	ASTM D 2240	91 ± 2	91
<b>Before Ageing</b>				<b>Typical value **</b>
Tensile strength	N/mm <sup>2</sup>	IS 10810 Part 7	18 (min)	17.5
Elongation at break	%		150 (min)	260
<b>After ageing @ 135°C ± 2°C for 7 days</b>				
Tensile strength	N/mm <sup>2</sup>	IS 10810 Part 11	18 (min)	18.55
Variation in Tensile strength	%		± 20	6
Elongation at break	%		125 (min)	234
Variation in Elongation	%		± 20	- 10
<b>Thermal Stability @ 200°C ± 0. 5°C</b>	Minutes	IS 10810 Part 60	100 (min)	> 100
<b>Heat Shock test @ 136°C ± 2°C &amp; Duration 1 hour</b>				
Visual examination	-	IS 10810 Part 14	No cracks or scales	No cracks or scales
Volume Resistivity @ 27°C	Ohm-cm	IS 10810 Part 43	1x 10 <sup>13</sup> (min)	5 x 10 <sup>13</sup>
Volume Resistivity @ 70°C	Ohm-cm		1x 10 <sup>10</sup> (min)	6 x 10 <sup>10</sup>
<b>Cold bend test - 20°C ± 2°C &amp; Duration 4 hrs</b>				
Visual examination	-	IS 10810 Part 20	No cracks or scales	No cracks or scales
<b>Oil resistance test for 60 °C oil rating (After ageing) Aging temperature 100 ° C ± 2 ° C duration 96 hours</b>				
Retention of tensile strength	%	-	50 % of unaged (min)	80
Retention of elongation strength	%	-	50 % of unaged (min)	75

\* 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:** PS 14 HT 01 NL can be processed on any good PVC extruder with a temperature range of 140°C - 185°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% Non – Lead PVC compatible master batches without affecting end product properties.

**Package Storage & Handling:** PS 14 HT 01 NL 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:** PS 14 HT 01 NL 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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