



FR90HD LSNH High Flame Retardant Cable Compound for Jacket

◆ Application

FR90HD is designed as the outer sheath of fire resistant power cable, power supply cord, signal cable and communication cable which require achieving the standard of GB19216, IEC60331 and BS6387 by simplified structure without mica tape and armor.

◆ Property Parameter

| Item | Unit | Typical Value | Test Method |
|---------------------------------|-------------------|-------------------------|-------------|
| Density | g/cm ³ | 1.25 | ISO 1183 |
| Melt Flow Index (190°C, 2.16KG) | g/10min | 0.60 | ISO 1133 |
| HCL generation | % | ND | IEC 60754-1 |
| LOI | % | 28 | ISO 4589 |
| Conductivity | μS/mm | 6.2 | IEC 60754-2 |
| 20°C Volume Resistivity | Ω.m | 1.18 x 10 ¹¹ | IEC 60093 |
| pH Value | | 6.9 | IEC 60754-2 |
| Smoke Density | Non-Flaming mode | 72 | ASTM E662 |
| | Flaming mode | 71 | ASTM E662 |
| Tensile Strength | MPa | 11 | IEC 60811 |
| Elongation | % | 380 | IEC 60811 |
| Heat Aging Method | °C × h | 110 °C × 168h | IEC 60811 |
| Change of Tensile Strength | % | 8 | IEC 60811 |
| Change of Elongation | % | 13 | IEC 60811 |
| Heat Deformation | % | 8 | IEC 60811 |
| Toxicity index | | 3.1 | NES 713 |
| Cold Brittleness (-25°C) | | Pass | ISO 974 |

◆ Processing Guide

1) Processing Temperature

The recommended temperature range is 120°C-170°C.

| Barrel 1 | Barrel 2 | Barrel 3 | Barrel 4 | Barrel 5 | Die |
|----------|----------|----------|----------|----------|-------|
| 120°C | 150°C | 160°C | 165°C | 170°C | 165°C |

2) Extrusion Equipment

It can be processed in ordinary PVC processing machine, standard extruders with gradually changing screw having L/D ≥ 25.

◆ Storage & Packaging

Store in dry place at ambient temperature. Avoid direct exposure to sunlight, moisture and weathering. If water content > 0.2%, pre-dry under 90°C for 2-4 hours. Use as soon as possible after open. Recommend storage period not more than 6 months. Standard packing of 25kg net in vacuum pack. Customized package is also available.