

**ZC-5611 Irradiation Crosslinkable LSZH Insulation Compound for BV Cable(105℃)**

This material is used for halogen-free flame retardant(irradiation cross-linkable) wire and cable insulation material. It is made of high quality resin, flame retardant, antioxidant agent and cross-linking agent by mixing granulation. None-halogen property makes the materials non-toxic when burning; it has excellent flame retardancy, good physical and mechanical properties and processing performance; Heat resistance level is 105℃, can pass the VD-1 combustion test(insulation thickness: 0.8mm).

Standard: UL 1581/UL 758; JB/T 10491

Application: BV cable; Internal wiring of electronic and electrical equipment

Property

| Item | | Unit | Test method | Before | After |
|---|-------------------------------|-------------------|---------------|--------------------|--------------------|
| Density@23℃ | | g/cm ³ | ASTM D792 | 1.49 | 1.49 |
| Tensile strength | | MPa | IEC 60811-1-1 | 9.0 | 11.0 |
| Elongation at break | | % | | 300 | 210 |
| After aging @135℃, 168h | Tensile strength variation | % | IEC 60811-1-2 | — | 13 |
| | Breaking elongation variation | % | | — | -12 |
| Hot prolongation@200℃, 0.2MPa, 15min | Elongation under the load | % | IEC 60811-2-1 | — | 25-40 |
| | Permanent deformation | % | | — | 0 |
| Low temperature bending test@-20℃ | | — | IEC 60811-1-4 | No crack | No crack |
| Combustion test | | — | ASTM E662 | VD-1 | VD-1 |
| The halogen acid gas content | | mg/g | IEC 60754-1 | none | none |
| pH | | — | IEC 60754-2 | 5.0 | 5.0 |
| Electrical conductivity | | μS/mm | IEC 60754-2 | 2.5 | 2.5 |
| Dielectric strength@20℃ | | MV/m | IEC 60243-1 | ≥25 | ≥25 |
| Volume resistivity@20℃ | | Ω·cm | ASTM D257 | 1×10 ¹⁴ | 1×10 ¹⁴ |
| Hardness | | Shore A | ASTM D2240 | 94 | 94 |
| The irradiation condition: hot prolongation(25% to 40%) | | | | | |

Processing

Recommend to use conventional single screw extruder and specific low smoke halogen-free screw.

| Zone | 1 | 2 | 3 | 4 | 5 | 6 | Neck | Head |
|--------------------|-----|-----|-----|-----|-----|-----|------|------|
| Temperature Range℃ | 135 | 145 | 150 | 155 | 160 | 165 | 170 | 170 |

- Above temperature is only for reference.

Storage

Keep at room temperature; Storage environment should be clean, dry and ventilated; Please dry it after a long-time opening; Best use within six months from the date of production.

Product packing

25kg in moisture resistant aluminum laminated bags with composite paper bags outside; palletized bottom.