

**ZC-5322 Irradiation Crosslinkable LSZH Insulation Compound for Photovoltaic Cable(125°C)**

This material is used for halogen-free flame retardant(irradiation crosslinkable) 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 125°C, can pass the VD-1 combustion test.

**Standard:** TUV 2PFG 1169; UL4703; CEEIA B218

**Application:** Photovoltaic system/solar panel; Wire and cable; Control wire and cable; Railway wire and cable

**Property**

Item		Unit	Test method	Typical value
Density@23°C		g/cm <sup>3</sup>	ASTM D792	≤1.3
Tensile strength		MPa	IEC 60811-1-1	14.5
Elongation at break		%		185
After aging @150°C, 168h	Tensile strength retention	%	IEC 60811-1-2	101
	Breaking elongation retention	%		85
After aging @185°C, 100h	Tensile strength variation	%	IEC 60811-1-2	90
	Breaking elongation variation	%		70
Hot prolongation@200°C, 0.2MPa, 15min	Elongation under the load	%	IEC 60811-2-1	35-45
	Permanent deformation	%		0
Low temperature bending test@-40°C, 16h		—	IEC 60811-1-4	No crack
Combustion test		—	IEC 60332-1	VD-1
The halogen acid gas content		mg/g	IEC 60754-1	none
pH		—	IEC 60754-2	5
Electrical conductivity		μS/mm	IEC 60754-2	3.8
Dielectric strength@20°C		MV/mm	IEC 60243-1	25
Volume resistivity@20°C		Ω·cm	ASTM D257	1×10 <sup>15</sup>
Hardness		Shore A	ASTM D2240	93
The irradiation condition: hot prolongation(less than 45%)		%	—	25-35

**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 °C	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.