Smaron
- E-beam Crosslinking
- Heat-shrink Technology
- Crosslinkable Compounds

Compound LV-001

Compound LV-001 is a black radiation crosslinkable compound for heat-shrinkable tubing to be used as insulation of 1 kV low voltage conductors and for overall jacketing of cable joints for indoor and outdoor applications up to 36 kV

Compound properties

Compound characteristics:

Properties	Test Method	Typical Value
Specific gravity	**ASTM D 792**	**1,00 (gr/cm³)**
MFI (190°C/5kg)	**ASTM D 1238**	**3 – 6 gr/10 min**
Tensile Strength	**DIN 53504 (S1)** 200mm/min	**15,0 N/mm²**
Elongation @ break	**DIN 53504 (S1)** 200mm/min	**600 %**

Processing

Extrusion

Recommended extrusion temperature profile:		**125°C-130°C-140°C-150°C-155°C**
Recommended draw-down ratio	**:**	**< 1.1 : 1**
Recommended drying time (dry Air)	**:**	**4 hr@50°C**

Crosslinking

Recommended radiation dose	**:**	**35 - 40 kGy *(*)***
Hot-set elongation	**:**	**360 - 450% (150°C/20N/cm²load)**

Packaging:
It is recommended to package the compound in sealed ALU bags of 25 kg.
We recommend to store the compound below 30°C. Shelf Life : minimum 6 months

(*): This radiation dose is a starting point only and can be adapted to achieve other results for the hot-set-elongation, if needed.

It is recommended to process this compound on an extruder which processes polyolefin compounds only. Should this compound be processed on an extruder, which is also used for processing other compounds, the screw, extruder head, tooling and other devices should be cleaned very well. Any dirt, irregularities and contaminations, due to bad cleaning could result in pinholes or 'blow-outs' during the expansion process or result in mal-functioning of the final heat-shrink tubing.

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Tubing properties after Crosslinking

Heat-shrinkable tubing made of this compound will show excellent electrical and mechanical properties combined with superb long–term performance The robust properties makes this compound an excellent choice for the insulation of joints in copper or aluminum cables and as overall jacket of such joints.

Property	Test Method	Typical value
Physical		
Tensile strength at break	ASTM D 638	15N/mm²
Elongation at break	ASTM D 638	500%
Density	ASTM D 792	1,00gr/cm³
Hardness	Shore D	38
Water Absorption	ISO 62	0,2%
Thermal		
Continuous operating temperature	Internal Method	-55C to +125°C
Electrical		
Dielectric strength	ASTM D 149	25 kV/mm²
Volume resistivity	ASTM D 257	1 x 10^13Ωcm
Fungus Resistance	ASTM G21/ASTM D 638	No Growth

(*): Typical values can only be achieved if compound is processed according to our recommendations

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