

## Compound HV-003-358

*Irradiation crosslinkable compound with high insulation performance used in power cable joints for up to 36 kV applications*

### Compound properties

Compound HV-003-358 is a red colored radiation crosslinkable compound, which is based on a mix of well selected polymers, fillers, processing aids and additives for heat-shrink tubing which combines good electrical performance with optimal physical properties, for applications up to 36 kV

The compound is easy processable and can be extruded on low compression screws or standard PE screws

#### Compound characteristics:

	Test Method	Typical Value
Specific gravity	ASTM D 792	1.10 g/cm <sup>3</sup>
MFI (190°C/5kg)	ASTM D 1238	3.0 – 6.0 g/10min
Tensile Strength	DIN 53504 (S1) (200mm/min)	15 N/mm <sup>2</sup>
Elongation @ break	DIN 53504 (S1) (200mm/min)	650 %

#### 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	:	40kGy
Hot-set elongation	:	350 – 450% (@ 150°C/20N/cm <sup>2</sup> load)

#### Packaging:

The compound is packed in sealed ALU coated bags of 25 kg.

We recommend to store the unopened compound bags below 30°C with a maximum period of 6 months

*Smaron bv recommends to use an extruder which extrudes polyolefin compounds only. Should you decide to process the HV-001358--RED compound on an extruder, which is also used for extruding other compounds the screw, extruder head, tooling and other devices should be cleaned thoroughly. Any dirt or other irregularities, due to bad cleaning could result in pinholes or 'blow-outs' during the expansion process.*

#### Smaron bv

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### Tubing properties after Crosslinking

Heat-shrinkable tubing made of this compound may typically will typically show following properties

Property	Test Method	Typical value
<b>Physical</b>		
Tensile strength at break	ASTM D 638	> 14 MPa
Elongation at break	ASTM D 638	> 350 %
Density	ASTM D 792	1.10gr/cm <sup>3</sup>
Hardness	ASTM D 2240	38 Shore D
Water Absorption	ISO 62	0.3%
<b>Thermal</b>		
Continuous operating temperature	Internal Method	-40°C to +105°C
<b>Electrical</b>		
Dielectric strength	ASTM D 2671	> 20 kV/mm
Volume resistivity	ASTM D 257	1 x 10 <sup>13</sup> Ωcm

*Notice : The information given in this datasheet is believed to be accurate and reliable. However, no warranty, express or implied, or guarantee is given as to the suitability, accuracy, reliability or completeness of the information. This information does not hold us liable for damages or penalties resulting from following our suggestions or recommendations.*

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