



## Halogen-free, radiation cross-linkable, flame retardant sheathing compound






<p>■ <b>Compound class</b> Sheathing</p>	<p>■ <b>Compound category</b> </p>	<p>■ <b>Flame retardant</b> ATH</p>
<p>■ <b>Operating temperature [C°]</b> -40 to 145</p>	<p>■ <b>Oil resistance level</b> ★★★</p>	

■ **Typical applications**  
*Halogen-free, low smoke, highly oil and extra fuel resistant radiation cross-linkable, max. operating temperature 145°C, flame retardant compound of low and medium voltage cables for General Installation applications.*



General Applications

■ **Features**

 Flame retardant	 Halogen-free	 Low smoke
 Oil resistant	 High temperature resistant	

## PHYSICAL PROPERTIES

Physical properties	Unit	Typical value	Test method
Density*	g/cm <sup>3</sup>	<b>1,53</b>	DIN EN ISO 1183-1A
Hardness*	Shore D	<b>45</b>	DIN ISO 48-4
Melt Flow Index (150°C; 21,6kg)	g/10 min	<b>15</b>	DIN EN ISO 1133

## MECHANICAL PROPERTIES

Before crosslinking **	Unit	Typical value	Test method
Tensile strength	N/mm <sup>2</sup>	<b>≥ 10,0</b>	IEC 60811-501
Elongation at break	%	<b>≥ 220</b>	IEC 60811-501
After crosslinking ***	Unit	Typical value	Test method
Tensile strength (150kGy)	N/mm <sup>2</sup>	<b>≥ 13,5</b>	IEC 60811-501
Elongation at break (150kGy)	%	<b>≥ 175</b>	IEC 60811-501
After ageing in air oven 3000h at 145°C ***	Unit	Typical value	Test method
Variation in tensile strength	%	<b>-1,5</b>	IEC 60811-401
Variation in elongation at break	%	<b>-26,3</b>	IEC 60811-401

## THERMAL PROPERTIES \*\*\*

■ Hot set test at 200°C / 15min / 0,2MPa	Unit	Typical value	Test method
Elongation under load	%	<b>15</b>	IEC 60811-507
Residual elongation	%	<b>5</b>	IEC 60811-507

## RESISTANCE \*\*\*

■ Fluid IRM 902 24h at 100°C (150kGy)	Unit	Typical value	Test method
Variation in tensile strength	%	<b>-28,7</b>	IEC 60811-404
Variation in elongation at break	%	<b>+10,4</b>	IEC 60811-404
Variation in weight	%	<b>+44,1</b>	IEC 60811-404

## BURNING PROPERTIES \*

■ Main burning properties	Unit	Typical value	Test method
LOI	%	<b>34</b>	ASTM D 2863 A

## ELECTRICAL PROPERTIES\*

■ Major electrical properties	Unit	Typical value	Test method
Volume resistivity (500 V, 23°C)	Ω cm	<b>3,1*10<sup>14</sup></b>	VDE 0303-30
Volume resistivity (500 V, 90°C)	Ω cm	<b>1,7*10<sup>12</sup></b>	VDE 0303-30

\* pressed plaques, 155°C / 5 min.

\*\* extruded tapes

\*\*\* cross-linked plaques / tapes

## PROCESSING GUIDE

■ **Extruder Type**

Standard extruders for elastomeric or thermoplastic processing.

■ **Screw configuration**

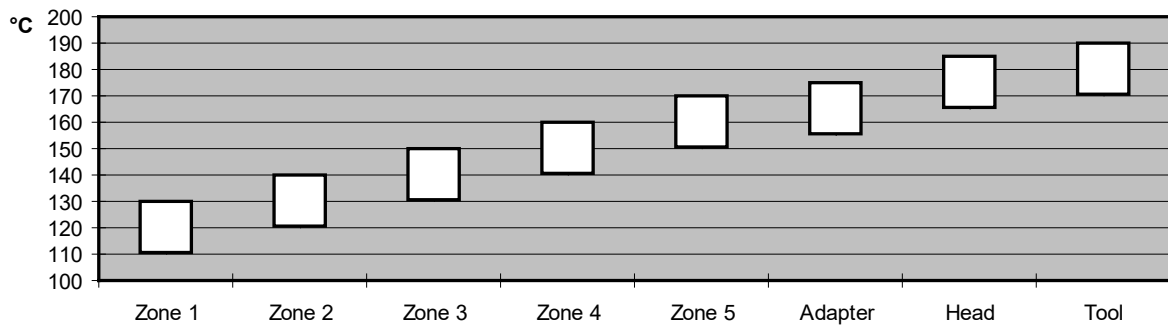
Low compression screw with L/D of 20 to 25 and compression ratio of 1:1.2

■ **Tooling**

For insulation pressure tools, for jacketing tube tools are recommended.  
Note: Pressure Tooling may have an effect on low temperature flexibility.

■ **Temperature profile extruder**

The profile shown below may vary slightly depending on extruder type, head design & output.



■ **Maximum mass temperature**

170-180°C

■ **Drying**

Not necessary if the compound has been stored in original packing under cool (max. 30°C) and dry conditions. Mecoline compounds used from open packing require pre-drying during 4–6 hours at 60–70°C.

## CROSS-LINKING INFORMATION

■ **Recommended radiation dose**

150 kGy

## STORAGE INFORMATION

■ **Form & packaging**

Pellets in sizes 2.8mm & 5.5mm  
Moisture-resistant bags (25kg) & octabins (alu-innerliner, max. 1250kg)

■ **Shelf life**

1 year after date of manufacturing

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