


Halogen-free, thermoplastic, highly flame retardant sheathing compound for low and medium voltage cables




<p>■ <b>Compound class</b> Sheathing</p>	<p>■ <b>Compound category</b> <b>TP</b></p>	<p>■ <b>Flame retardant</b> ATH</p>
<p>■ <b>Standards</b> VDE 0207 part 24 HM 2</p>	<p>VDE 0250 part 215 HM 5</p>	<p>IEC 60092-360 SHF 1</p>
<p>■ <b>Operating temperature [C°]</b> -25 to 80</p>	<p>■ <b>Oil resistance level</b> ★</p>	

■ **Typical applications**  
*Halogen-free, low smoke, thermoplastic, highly flame retardant char formation compound for the sheathing of low and medium voltage cables in General Installation applications.*



Installation

■ **Features**

 Flame retardant	 Halogen-free	 Low smoke
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## PHYSICAL PROPERTIES

Physical properties	Unit	Typical value	Test method
Density*	g/cm <sup>3</sup>	<b>1,55</b>	DIN EN ISO 1183-1A
Hardness*	Shore D	<b>47</b>	DIN ISO 7619-1
Melt Flow Index (160°C; 21,6kg)	g/10 min	<b>3,2</b>	DIN EN ISO 1133

## MECHANICAL PROPERTIES \*\*

Thermoplastic	Unit	Typical value	Test method
Tensile strength	N/mm <sup>2</sup>	<b>9,2</b>	IEC 60811-501
Elongation at break	%	<b>195</b>	IEC 60811-501
■ <b>After ageing in air oven 168h at 100°C ***</b>			
Variation in tensile strength	%	<b>+14,1</b>	IEC 60811-401
Variation in elongation at break	%	<b>-25,1</b>	IEC 60811-401
■ <b>After ageing in air oven 336h at 100°C ***</b>			
Variation in tensile strength	%	<b>+12,0</b>	IEC 60811-401
Variation in elongation at break	%	<b>-19,0</b>	IEC 60811-401

## THERMAL PROPERTIES \*\*

■ Heat tests	Unit	Typical value	Test method
Hot pressure test: penetration 6h at 80°C	%	<b>40</b>	IEC 60811-508

## ELECTRICAL PROPERTIES \*

■ Major electrical properties	Unit	Typical value	Test method
Volume resistivity at 23°C / 500V	Ω cm	<b>5,6 x 10<sup>11</sup></b>	DIN IEC 60093
Dielectric strength	kV/mm	<b>27,6</b>	IEC 60243-1

## BURNING PROPERTIES \*

■ Main burning properties	Unit	Typical value	Test method
LOI *	%	<b>41</b>	ASTM D 2863 A
Temperature index	°C	<b>290</b>	ASTM D 2863 D
■ Acid gas emission	Unit	Typical value	Test method
Corrosivity: pH (min.)	-	<b>≥ 4,5</b>	IEC 60754-2
Conductivity (max.)	μS/mm	<b>≤ 10</b>	IEC 60754-2

\* pressed plaques, 155°C / 5 min.

\*\* extruded tapes

## PROCESSING GUIDE

■ **Extruder Type**

Standard extruders for elastomeric or thermoplastic processing

■ **Screw configuration**

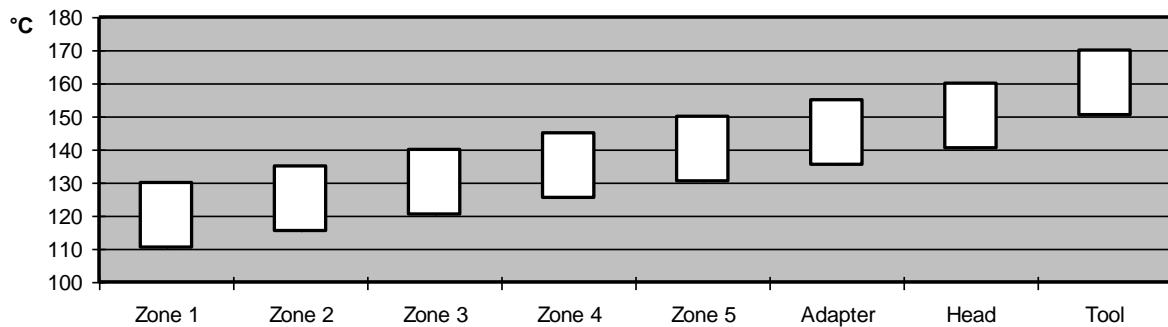
Low compression screw with L/D of 20 to 25 and compression ratio of 1:1.2

■ **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**

155 – 165°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.

## 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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