


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





<p>■ <b>Compound class</b> Insulation / Sheathing</p>	<p>■ <b>Compound category</b> <b>TP</b></p>	<p>■ <b>Flame retardant</b> ATH</p>
<p>■ <b>Standards</b> BS 7655 LTS 1 &amp; LTS 3 IEC 60092-360 SHF 1</p>	<p>DIN EN 50363-8 TM7 VDE 0207 part 24 HM 2</p>	<p>VDE 0250 part 215 HM 5 DIN EN 50525-3-11 TI 6</p>
<p>■ <b>Operating temperature [C°]</b> -40 to 80</p>	<p>■ <b>Oil resistance level</b> ★</p>	

■ **Typical applications**  
*Halogen-free, low smoke, thermoplastic, flame retardant compound for the sheathing of data communications, low and medium voltage cables in general Installations applications. This compound is flexible and features a high line speed and good processability.*



Installation

■ **Features**

 Flame retardant	 Halogen-free	 Low smoke
 Flexible		

## PHYSICAL PROPERTIES

Physical properties	Unit	Typical value	Test method
Density*	g/cm <sup>3</sup>	<b>1.47</b>	DIN EN ISO 1183-1A
Hardness*	Shore D	<b>47</b>	DIN ISO 48-4
Melt Flow Index (150°C; 21,6kg)	g/10 min	<b>8.5</b>	DIN EN ISO 1133

## MECHANICAL PROPERTIES\*\*

Thermoplastic	Unit	Typical value	Test method
Tensile strength	N/mm <sup>2</sup>	<b>11</b>	IEC 60811-501
Elongation at break	%	<b>220</b>	IEC 60811-501
Pulley flexing test	cycles	<b>&gt; 10.000</b>	EN 50 396 cl. 6.2

■ After ageing in air oven 168h at 80°C ***	Unit	Typical value	Test method
Variation in tensile strength	%	<b>+10.5</b>	IEC 60811-401
Variation in elongation at break	%	<b>-8.7</b>	IEC 60811-401

## THERMAL PROPERTIES \*\*

■ Low temperature tests	Unit	Typical value	Test method
Elongation at break at -30°C	%	<b>95</b>	IEC 60811-505
Elongation at break at -40°C	%	<b>56</b>	IEC 60811-505
■ Heat tests	Unit	Typical value	Test method
Hot pressure test: penetration 6h at 80°C	%	<b>18</b>	IEC 60811-508

## ELECTRICAL PROPERTIES\*

■ Major electrical properties	Unit	Typical value	Test method
Volume resistivity (23°C, 100V)	Ω cm	<b>1.02 x 10<sup>15</sup></b>	IEC 62631-3-1
Volume resistivity (90°C, 100V)	Ω cm	<b>6.44 x 10<sup>13</sup></b>	IEC 62631-3-1

## RESISTANCE \*\*

■ Water purified 168h at 70°C	Unit	Typical value	Test method
Variation in tensile strength	%	<b>-20.0</b>	IEC 60811-404
Variation in elongation at break	%	<b>-25.8</b>	IEC 60811-404
Variation in weight	%	<b>+1.0</b>	IEC 60811-404

## BURNING PROPERTIES\*

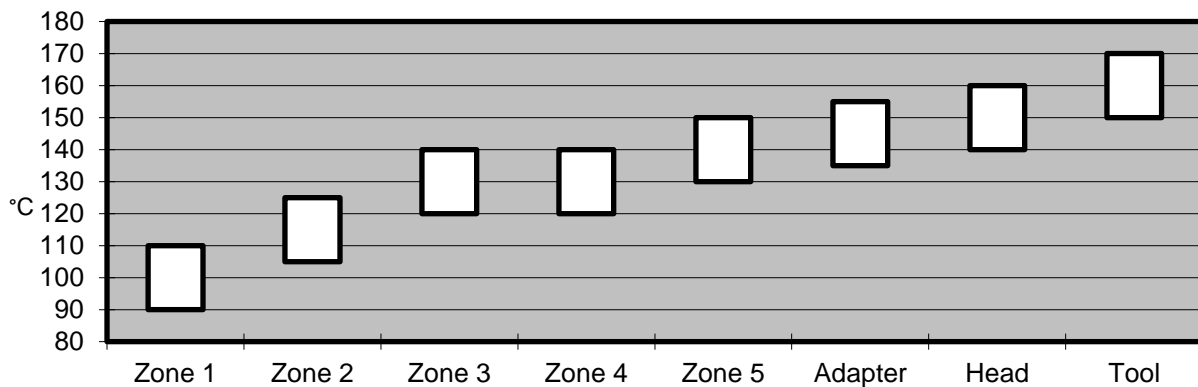
■ Main burning properties	Unit	Typical value	Test method
LOI	%	<b>39</b>	ASTM D 2863 A
Halogen acid gas content	mg/g	<b>not detectable</b>	DIN EN 60754-1
Toxicity index	-	<b>3.18</b>	EN 50305
■ Acid gas emission	Unit	Typical value	Test method
Corrosivity: pH (min.)	-	<b>6.9</b>	IEC 60754-2
Conductivity (max.)	μS/mm	<b>2.6</b>	IEC 60754-2

\* pressed plaques, 155°C / 5 min

\*\* extruded tapes

## PROCESSING GUIDE

- **Extruder Type** Standard extruders for elastomeric or thermoplastic materials.
- **Screw configuration** Low compression screw with L/D of 20 to 25 and compression ratio of 1:1.2
- **Tooling** Pressure, semi-compression or tube possible
- **Temperature profile extruder** The profile shown below may vary slightly depending on extruder type, head design & output.



- **Maximum mass temperature** 160 – 170°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 size 2.8mm  
Moisture-resistant bags (25kg) & octabins (alu-innerliner, max. 1250kg)
- **Shelf life** 1 year after date of manufacturing

Note: 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.