






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

<p>■ <b>Compound class</b> Insulation / sheathing</p> <p>■ <b>Standards</b> BS 6724 DIN EN 50363-7 TI 6, TI7 VDE 0207 part 24 HM2, HM4</p> <p>■ <b>Operating temperature [C°]</b> -30 to 90</p>	<p>■ <b>Compound category</b> <b>TP</b></p> <p>BS 7655 section 6.1 LTS 2 DIN EN 50363-8 TM7 VDE 0250 part 215 HM5</p> <p>■ <b>Oil resistance level</b> ★</p>	<p>■ <b>Flame retardant</b> ATH</p> <p>DIN VDE 0281 part 14 TI 6, TM 7 IEC 60092- 360 SHF 1 VDE 0276 part 604 HM 4</p>
<p>■ <b>Typical applications</b> <i>Halogen-free, low smoke, thermoplastic, highly flame retardant compound for the insulation and sheathing of low and medium voltage cables in General Installation applications.</i></p>		
 General Installation	 Shipboard	
<p>■ <b>Features</b></p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  Flame retardant             </div> <div style="text-align: center;">  Halogen-free             </div> <div style="text-align: center;">  Low smoke             </div> </div>		

## 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>50</b>	DIN ISO 7619-1
Melt Flow Index (150°C; 21,6kg)	g/10 min	<b>9,9</b>	DIN EN ISO 1133

## MECHANICAL PROPERTIES \*\*

Thermoplastic	Unit	Typical value	Test method
Tensile strength	N/mm <sup>2</sup>	<b>12,5</b>	IEC 60811-501
Elongation at break	%	<b>190</b>	IEC 60811-501
Tear strength	N/mm	<b>8,2</b>	BS 6469:99.1
After ageing in air oven 168h at 100°C **	Unit	Typical value	Test method
Variation in tensile strength	%	<b>3,7</b>	IEC 60811-401
Variation in elongation at break	%	<b>6,2</b>	IEC 60811-401

■ After ageing in air oven 168h at 110°C **	Unit	Typical value	Test method
Variation in tensile strength	%	<b>6,5</b>	IEC 60811-401
Variation in elongation at break	%	<b>5,2</b>	IEC 60811-401

## THERMAL PROPERTIES \*\*

■ Heat tests	Unit	Typical value	Test method
Hot pressure test: penetration 6h at 90°C	%	<b>15</b>	IEC 60811-508

## RESISTANCE \*\*

■ IRM 902 4h at 70°C	Unit	Typical value	Test method
Variation in tensile strength	%	<b>-9,8</b>	IEC 60811-404
Variation in elongation at break	%	<b>-0,5</b>	IEC 60811-404
Variation in weight	%	<b>0</b>	IEC 60811-404
■ IRM 902 20h at 50°C	Unit	Typical value	Test method
Variation in tensile strength	%	<b>-9,9</b>	IEC 60811-404
Variation in elongation at break	%	<b>0,9</b>	IEC 60811-404
Variation in weight	%	<b>7</b>	IEC 60811-404

## BURNING PROPERTIES \*

■ Main burning properties	Unit	Typical value	Test method
LOI	%	<b>50</b>	ASTM D 2863 A
Halogen content	%	<b>0</b>	IEC 754-1
■ Acid gas emission	Unit	Typical value	Test method
Corrosivity: pH	-	<b>5,94</b>	DIN EN 60754-2
Conductivity	μS/mm	<b>0,41</b>	DIN EN 60754-2

\* pressed plaques, 155°C / 5 min.

\*\* extruded tapes

## PROCESSING GUIDE

■ **Extruder Type**

Standard extruders for elastomeric or thermoplastic processing.

■ **Screw configuration**

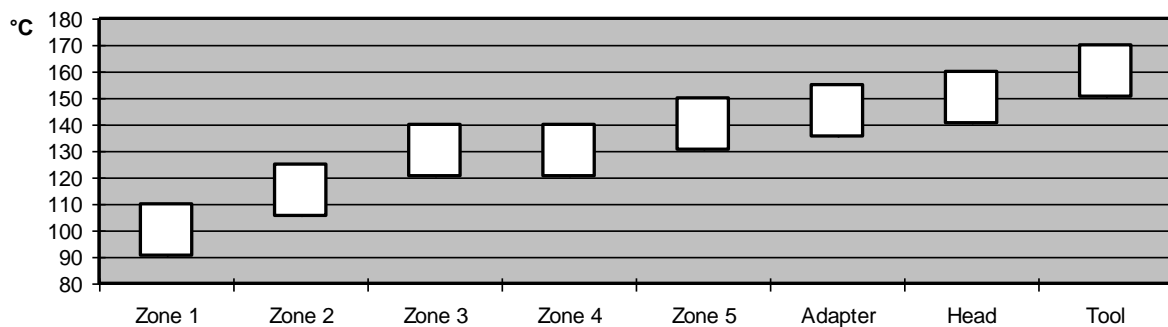
Low compression screw with L/D of 20 to 25 and compression ratio of 1:1.2

■ **Tooling**

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**

170 – 180°C

■ **Drying**

Predrying of Mecoline Compounds is normally not necessary provided the compound has been stored in sealed bags under cool (max. 30°C) and dry conditions.

If Mecoline Compounds are used from open bags, predrying 4–6h at a temperature of 60–70°C is recommended.

## 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 production

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