

















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

<p>■ Compound class Sheathing</p>	<p>■ Compound category TP</p>	<p>■ Flame retardant ATH</p>						
<p>■ Standards BS 7655 LTS 1 & LTS 3 IEC 60092-360 SHF 1</p>	<p>DIN EN 50363-8 TM7 VDE 0207 part 24 HM 2 & HM 4</p>	<p>DIN VDE 0281 part14 TM 7 VDE 0250 part 215 HM 5</p>						
<p>■ Typical applications <i>Halogen-free, low smoke, thermoplastic, highly flame retardant compound for the sheathing of low and medium voltage cables in General Installations applications. This compound features a high line speed and good processability.</i></p>  <p>Telecomm., Optical Fibre, Coaxial</p>								
<p>■ Features</p> <table border="0"> <tr> <td> Flame retardant</td> <td> Halogen-free</td> <td> Low smoke</td> </tr> <tr> <td> Tear-resistant</td> <td> Abrasion-resistant</td> <td></td> </tr> </table>			 Flame retardant	 Halogen-free	 Low smoke	 Tear-resistant	 Abrasion-resistant	
 Flame retardant	 Halogen-free	 Low smoke						
 Tear-resistant	 Abrasion-resistant							

PHYSICAL PROPERTIES

■ Physical properties	Unit	Typical value	Test method
Density*	g/cm ³	1.53	DIN EN ISO 1183-1A
Hardness*	Shore D	50	DIN ISO 7619-1
Melt Flow Index (150°C; 21,6kg)	g/10 min	6.0	DIN EN ISO 1133

MECHANICAL PROPERTIES**

■ Thermoplastic	Unit	Typical value	Test method
Tensile strength	N/mm ²	11.5	IEC 811-1-1
Elongation at break	%	190	IEC 811-1-1
Tear strength	N/mm	7.9	BS 6469:99.1
Thermal contraction	%	5	IEC 811-1-3
■ After ageing in air oven 168h at 100°C ***	Unit	Typical value	Test method
Variation in tensile strength	%	-6.5	IEC 811-1-2
Variation in elongation at break	%	-17.0	IEC 811-1-2

THERMAL PROPERTIES **

■ Heat tests	Unit	Typical value	Test method
Hot pressure test: penetration 6h at 90°C	%	39	DIN VDE 0472-609
Heat shock 1h at 150°C	%	Pass	DIN VDE 0472-608

RESISTANCE **

■ Fluid IRM 902 4h at 70°C	Unit	Typical value	Test method
Variation in tensile strength	%	-29.1	IEC 811-2-1
Variation in elongation at break	%	25.3	IEC 811-2-1
Variation in weight	%	9.0	IEC 811-2-1
■ Water purified 168h at 70°C	Unit	Typical value	Test method
Variation in tensile strength	%	-8.4	IEC 811-2-1
Variation in elongation at break	%	-14.8	IEC 811-2-1
Variation in weight	%	2.0	IEC 811-2-1

BURNING PROPERTIES*

■ Main burning properties	Unit	Typical value	Test method
LOI	%	41	ASTM D 2863 A
Halogen content	%	0	IEC 754-1
■ Acid gas emission	Unit	Typical value	Test method
Corrosivity: pH (min.)	-	≥4.5	IEC 60754-2
Conductivity (max.)	μS/mm	≤10	

* pressed plaques, 155°C / 5 min

** extruded tapes

PROCESSING GUIDE

■ **Extruder Type**

Standard extruders for elastomeric or thermoplastic materials.

■ **Screw configuration**

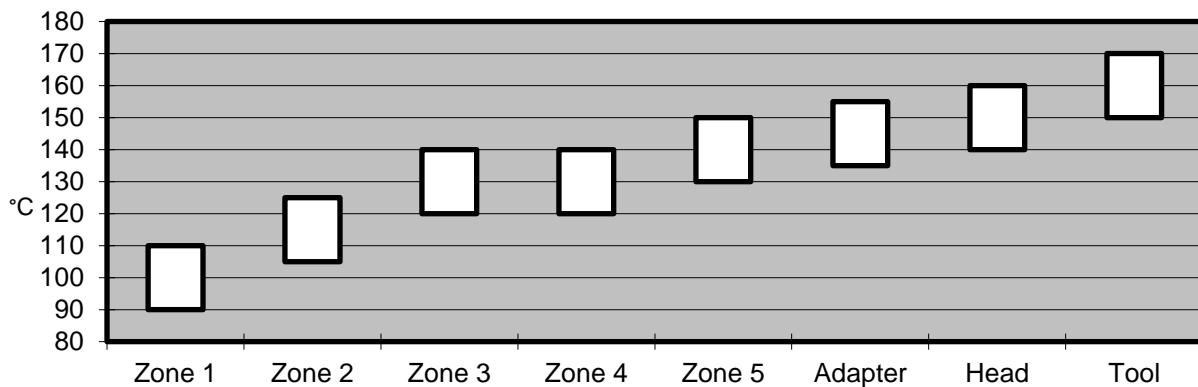
Low compression screw with L/D of 20 to 25 and compression ratio of 1:1.2

■ **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 sizes 2.8mm & 5.5mm
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.

Mecoline S TP 2002 F TDS ENG rev02 *22.08.2017* JT