







Halogen-free, thermoplastic, 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 VDE 0207 part 24 HM2, HM4</p>		
<p>■ Operating temperature [C°] -25 to 90</p>	<p>■ Oil resistance level ★★</p>	
<p>■ Typical applications <i>Halogen-free, low smoke, thermoplastic, flame retardant compound for the sheathing of low and medium voltage cables in General Installation applications.</i></p>		
 <p>Installation</p>	 <p>Shipboard</p>	 <p>Telecomm., Optical Fibre, Coaxial</p>
<p>■ Features</p>		
 <p>Flame retardant</p>	 <p>Halogen-free</p>	 <p>Low smoke</p>

PHYSICAL PROPERTIES

■ Physical properties	Unit	Typical value	Test method
Density*	g/cm ³	1.52	DIN EN ISO 1183-1A
Hardness*	Shore D	54	DIN ISO 48-4
Mooney viscosity, ML (1+4) 140°C	MU	29	DIN ISO 289-1
Melt Flow Index (150°C; 21,6kg)	g/10 min	11.1	DIN EN ISO 1133
■ Water absorption **	Unit	Typical value	Test method
Water absorption after 10d at 70°C	mg/cm ²	1.2	IEC 60811-402

MECHANICAL PROPERTIES **

■ Thermoplastic	Unit	Typical value	Test method
Tensile strength	N/mm ²	11.2	IEC 60811-501
Elongation at break	%	180	IEC 60811-501
Tear strength	N/mm	6.4	BS 6469:99-1
■ After ageing in air oven 168h at 110°C	Unit	Typical value	Test method
Variation in tensile strength	%	+13	IEC 60811-401
Variation in elongation at break	%	-10	IEC 60811-401

THERMAL PROPERTIES **

■ Low temperature tests	Unit	Typical value	Test method
Cold elongation -25°C	%	62	IEC 60811-505
■ Heat tests	Unit	Typical value	Test method
Hot pressure test: penetration 4h at 90°C	%	12	IEC 60811-508

ELECTRICAL PROPERTIES *

■ Major electrical properties	Unit	Typical value	Test method
Volume resistivity at 23°C / 500V	Ω cm	10¹⁴	DIN IEC 60093

RESISTANCE **

■ Fluid IRM 902 4h at 70°C	Unit	Typical value	Test method
Variation in tensile strength	%	-21.1	IEC 60811-404
Variation in elongation at break	%	+6.5	IEC 60811-404

BURNING PROPERTIES *

■ Main burning properties	Unit	Typical value	Test method
LOI	%	34	ASTM D 2863 A
Temperature index	°C	270	ISO 4589-3

* pressed plaques, 155°C / 5 min.

** extruded tapes

PROCESSING GUIDE

■ **Extruder Type**

Standard extruders for elastomeric or thermoplastic processing.

■ **Screw configuration**

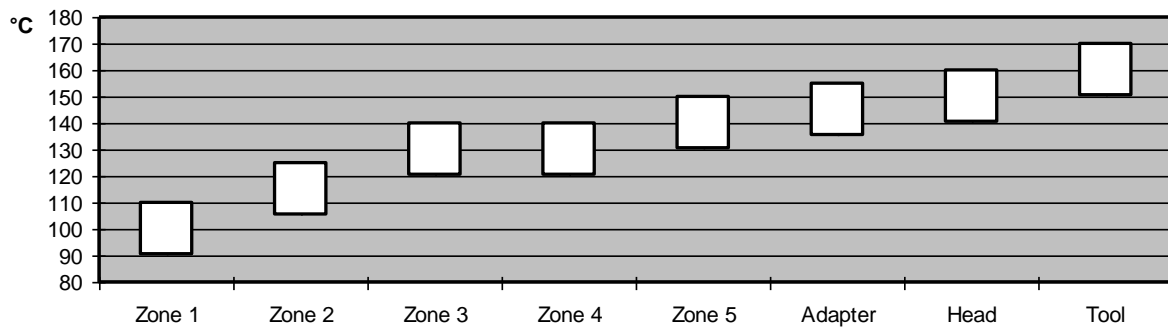
Low compression screw with L/D of 20 to 25 and compression ratio of 1:1.2

■ **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**

160 – 170°C

■ **Conductor pre-heating**

Pre-heating between 100°C-140°C to achieve maximum properties of elongation at break of the insulation.

■ **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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