



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 DIN EN 50363-8 TM7 IEC 60092-360 SHF 1</p>	<p>VDE 0207 part 24 HM2 VDE 0250 part 215 HM 5</p>	<p>BS 7655 part 6.1 LTS 1 & LTS 3</p>
<p>■ Operating temperature [C°] -25 to 80</p>	<p>■ Oil resistance level ★</p>	

■ **Typical applications**
Halogen-free, low smoke, thermoplastic, flame retardant compound for the sheathing of low and medium voltage cables in General Installation applications. The compound features a high line speed and good processability.




Installation




Shipboard


■ **Features**



Flame retardant



Low smoke



Halogen-free

PHYSICAL PROPERTIES

Physical properties	Unit	Typical value	Test method
Density*	g/cm ³	1,50	DIN EN ISO 1183-1A
Hardness*	Shore D	47	DIN ISO 48-4
Melt Flow Index (150°C; 21,6kg)	g/10 min	11,5	DIN EN ISO 1133
Melt Flow Index (190°C; 21,6kg)	g/10 min	33,7	DIN EN ISO 1133
Mooney viscosity, ML (1+4) 140°C	MU	28	DIN ISO 289-1

MECHANICAL PROPERTIES **

Thermoplastic	Unit	Typical value	Test method
Tensile strength	N/mm ²	10,9	IEC 60811-501
Elongation at break	%	193	IEC 60811-501
After ageing in air oven 168h at 100°C	Unit	Typical value	Test method
Variation in tensile strength	%	6,4	IEC 60811-401
Variation in elongation at break	%	-18,1	IEC 60811-401

THERMAL PROPERTIES **

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

RESISTANCE **

■ Water purified 168h at 70°C	Unit	Typical value	Test method
Variation in tensile strength	%	-16,3	IEC 60811-404
Variation in elongation at break	%	-2,8	IEC 60811-404
Variation in weight	%	0	IEC 60811-404

BURNING PROPERTIES *

■ Main burning properties	Unit	Typical value	Test method
LOI	%	36	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	IEC 60754-2

* pressed plaques, 155°C / 5 min.

** extruded tapes

PROCESSING GUIDE

■ **Extruder Type**

Standard extruders for elastomeric or thermoplastic processing.

■ **Screw configuration**

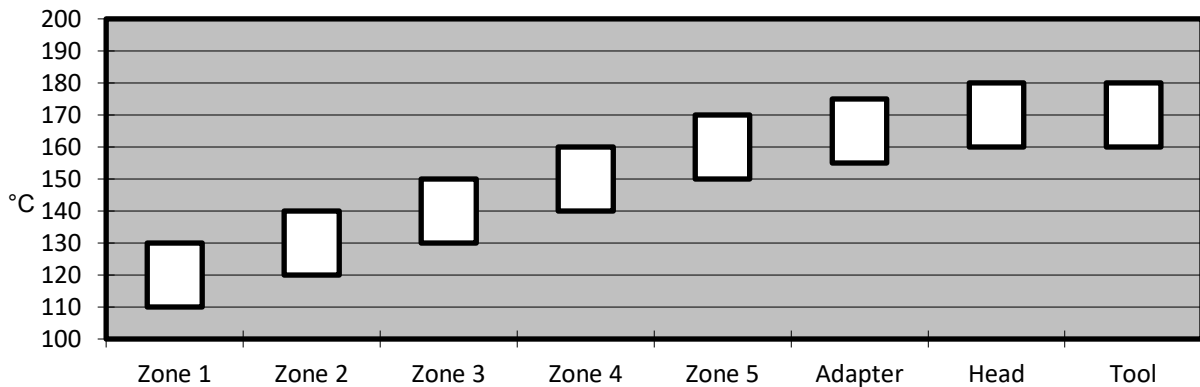
Low compression screw with L/D of 20 to 25 and compression ratio of 1:1.2

■ **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**

165 – 175°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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