


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 VDE 0207 part 24 HM 2</p>	<p>VDE 0250 part 215 HM 5</p>	<p>IEC 60092-360 SHF 1</p>
<p>■ Operating temperature [C°] -25 to 80</p>	<p>■ Oil resistance level ★</p>	

■ **Typical applications**
Halogen-free, low smoke, thermoplastic, highly flame retardant char formation compound for the sheathing of low and medium voltage cables in General Installation applications.



Installation

■ **Features**

 Flame retardant	 Halogen-free	 Low smoke
---	--	---

PHYSICAL PROPERTIES

Physical properties	Unit	Typical value	Test method
Density*	g/cm ³	1,55	DIN EN ISO 1183-1A
Hardness*	Shore D	47	DIN ISO 48-4
Melt Flow Index (160°C; 21,6kg)	g/10 min	3,2	DIN EN ISO 1133

MECHANICAL PROPERTIES **

Thermoplastic	Unit	Typical value	Test method
Tensile strength	N/mm ²	9,2	IEC 60811-501
Elongation at break	%	195	IEC 60811-501
■ After ageing in air oven 168h at 100°C ***			
Variation in tensile strength	%	+14,1	IEC 60811-401
Variation in elongation at break	%	-25,1	IEC 60811-401
■ After ageing in air oven 336h at 100°C ***			
Variation in tensile strength	%	+12,0	IEC 60811-401
Variation in elongation at break	%	-19,0	IEC 60811-401

THERMAL PROPERTIES **

■ Heat tests	Unit	Typical value	Test method
Hot pressure test: penetration 6h at 80°C	%	40	IEC 60811-508

ELECTRICAL PROPERTIES *

■ Major electrical properties	Unit	Typical value	Test method
Volume resistivity at 23°C / 500V	Ω cm	5,6 x 10¹¹	DIN IEC 60093
Dielectric strength	kV/mm	27,6	IEC 60243-1

BURNING PROPERTIES *

■ Main burning properties	Unit	Typical value	Test method
LOI *	%	41	ASTM D 2863 A
Temperature index	°C	290	ASTM D 2863 D
■ Acid gas emission	Unit	Typical value	Test method
Corrosivity: pH (min.)	-	≥ 4,5	IEC 60754-2
Conductivity (max.)	μS/mm	≤ 10	IEC 60754-2
■ Flame Rating	Unit	Typical value	Test method
Vertical (2mm thickness)	-	V0	UL 94 V
Vertical (3mm thickness)	-	V0	UL 94 V

* pressed plaques, 155°C / 5 min.

** extruded tapes

PROCESSING GUIDE

■ **Extruder Type**

Standard extruders for elastomeric or thermoplastic processing

■ **Screw configuration**

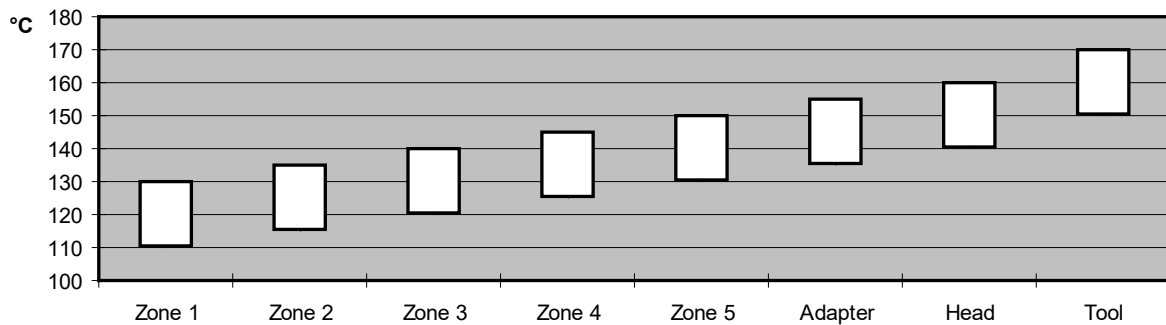
Low compression screw with L/D of 20 to 25 and compression ratio of 1:1.2

■ **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**

155 – 165°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.