


Halogen-free, thermoplastic, highly flame retardant sheathing compound for data communications, 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 IEC 60092-360 SHF 1</p>	<p>DIN EN 50363-8 TM7 VDE 0250 part 215 HM 5</p>	<p>DIN VDE 0281 part14 TM 7</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 data communications, low and medium voltage cables in General Installation applications.



Installation

■ **Features**

 Flame retardant	 Halogen-free	 Low smoke
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PHYSICAL PROPERTIES

Physical properties	Unit	Typical value	Test method
Density*	g/cm ³	1,48	DIN EN ISO 1183-1A
Hardness*	Shore D	49	DIN ISO 7619-1
Melt Flow Index (150°C; 21,6kg)	g/10 min	8,5	DIN EN ISO 1133

MECHANICAL PROPERTIES **

Thermoplastic	Unit	Typical value	Test method
Tensile strength	N/mm ²	9,6	IEC 60811-501
Elongation at break	%	212	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	%	+9,1	IEC 60811-401
■ After ageing in air oven 336h at 100°C ***			
Variation in tensile strength	%	+7,6	IEC 60811-401
Variation in elongation at break	%	+0,0	IEC 60811-401

THERMAL PROPERTIES **

■ Heat tests	Unit	Typical value	Test method
Hot pressure test: penetration 6h at 80°C	%	16	IEC 60811-508

ELECTRICAL PROPERTIES*

■ Major electrical properties	Unit	Typical value	Test method
Volume resistivity at 27°C	Ω cm	1,2 x 10¹³	DIN IEC 60093
Dielectric strength at 23°C	kV/mm	20,2	IEC 60243-1

RESISTANCE **

■ Water purified 168h at 70°C	Unit	Typical value	Test method
Variation in tensile strength	%	-9,8	IEC 60811-404
Variation in elongation at break	%	+0,6	IEC 60811-404
Variation in weight	%	+1,0	IEC 60811-404

BURNING PROPERTIES *

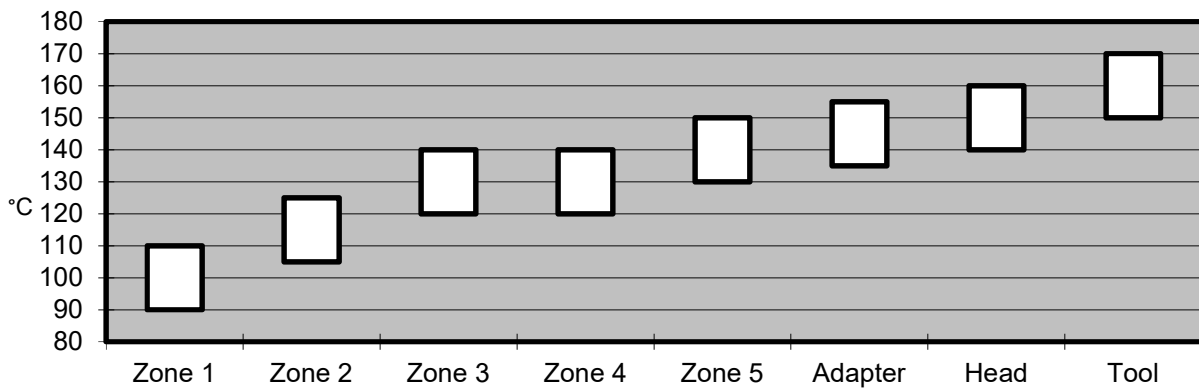
■ Main burning properties	Unit	Typical value	Test method
LOI *	%	38	ASTM D 2863 A
■ Acid gas emission	Unit	Typical value	Test method
Conductivity (max.)	μS/mm	0,5	IEC 60754-2
Corrosivity: pH (min.)	--	6,1	IEC 60754-2

* pressed plaques, 155°C / 5 min.

** extruded tapes

PROCESSING GUIDE

<ul style="list-style-type: none"> ■ Extruder Type 	Standard extruders for elastomeric or thermoplastic materials.
<ul style="list-style-type: none"> ■ Screw configuration 	Low compression screw with L/D of 20 to 25 and compression ratio of 1:1.2
<ul style="list-style-type: none"> ■ Tooling 	Pressure, semi-compression or tube possible
<ul style="list-style-type: none"> ■ Temperature profile extruder 	The profile shown below may vary slightly depending on extruder type, head design & output.



<ul style="list-style-type: none"> ■ Maximum mass temperature 	160 – 170°C
<ul style="list-style-type: none"> ■ 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

<ul style="list-style-type: none"> ■ Form & packaging 	Pellets in sizes 2.8mm & 5.5mm Moisture-resistant bags (25kg) & octabins (alu-innerliner, max. 1250kg)
<ul style="list-style-type: none"> ■ Shelf life 	1 year after date of manufacturing

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