


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 BS 7655 section 6.1 LTS1 - LTS4 DIN EN 50363-8 TM7</p>	<p>VDE 0207 part 24 HM 2, HM 4</p>	<p>IEC 60092-360 SHF 1</p>
<p>■ Operating temperature [°C] -40 to 90</p>	<p>■ Oil resistance level ★</p>	

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



General Installation

■ **Features**

 Flame retardant	 Halogen-free	 Low smoke
 Tear resistant		

PHYSICAL PROPERTIES

Physical properties	Unit	Typical value	Test method
Density*	g/cm ³	1.50	DIN EN ISO 1183-1A
Hardness*	Shore D	48	DIN ISO 7619-1
Melt Flow Index (150°C; 21,6kg)	g/10 min	3.8	DIN EN ISO 1133

MECHANICAL PROPERTIES **

Thermoplastic	Unit	Typical value	Test method
Tensile strength	N/mm ²	13.1	IEC 60811-501
Elongation at break	%	229	IEC 60811-501
Tear strength @ 23°C	N/mm	11.5	BS 6469:99.1
Tear strength @ 50°C	N/mm	6.9	BS 6469:99.1
Tear strength @ 60°C	N/mm	2.7	BS 6469:99.1

■ After ageing in air oven 168h at 100°C	Unit	Typical value	Test method
Variation in tensile strength	%	13.5	IEC 60811-401
Variation in elongation at break	%	- 18	IEC 60811-401
■ After ageing in air oven 168h at 110°C	Unit	Typical value	Test method
Variation in tensile strength	%	14.7	IEC 60811-401
Variation in elongation at break	%	- 19.1	IEC 60811-401

THERMAL PROPERTIES **

■ Low temperature tests	Unit	Typical value	Test method
Elongation at break at -40°C	%	> 30	IEC 60811-505
■ Heat tests	Unit	Typical value	Test method
Hot pressure test: penetration 6h at 90°C	%	20	IEC 60811-508

RESISTANCE **

■ Purified water 168h at 70°C	Unit	Typical value	Test method
Variation in tensile strength	%	-1	IEC 60811-404
Variation in elongation at break	%	-15	IEC 60811-404
Variation in weight	%	1	IEC 60811-404

BURNING PROPERTIES *

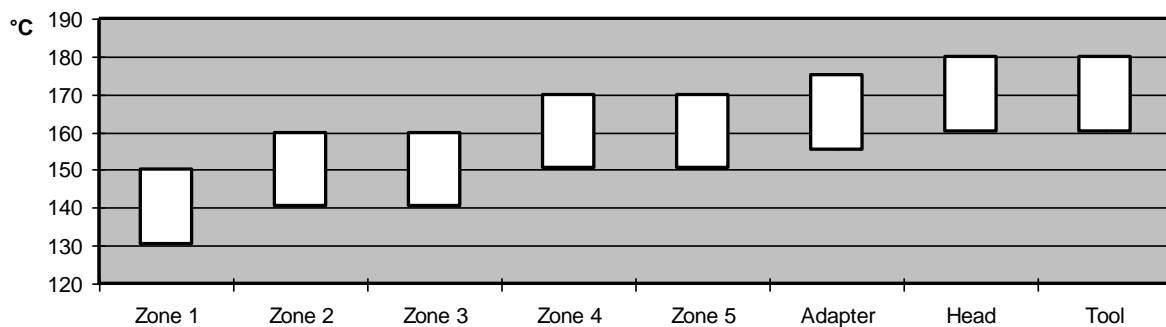
■ Main burning properties	Unit	Typical value	Test method
LOI	%	38	ASTM D 2863 A

* 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.
- **Temperature profile extruder** The profile shown below may vary slightly depending on extruder type, head design & output.



- **Maximum mass temperature** 170 – 180°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
Moisture-resistant bags (25kg) & octabins (alu-innerliner, max. 1250kg)
- **Shelf life** 1 year after date of manufacturing

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