















Halogen-free, thermoplastic, highly flame retardant insulation and sheathing compound for low and medium voltage cables

<p>■ Compound class Insulation / sheathing</p> <p>■ Standards BS 6724 DIN EN 50363-7 T1 6, T17 VDE 0207 part 24 HM2, HM4 IEC 60502-1 type ST8</p> <p>■ Operating temperature [C°] -30 to 90</p>	<p>■ Compound category TP</p> <p>BS 7655 section 6.1 LTS 2 DIN EN 50363-8 TM7 VDE 0250 part 215 HM5</p> <p>■ Oil resistance level ★</p>	<p>■ Flame retardant ATH</p> <p>DIN EN 50525-3-11 T1 6, TM 7 IEC 60092- 360 SHF 1 VDE 0276 part 604 HM 4</p>												
<p>■ Typical applications <i>Halogen-free, low smoke, thermoplastic, highly flame retardant compound for the insulation and sheathing of low and medium voltage cables in General Installation applications.</i></p>														
 <p>General Installation</p>	 <p>Shipboard</p>													
<p>■ Features</p> <table border="0"> <tr> <td></td> <td>Flame retardant</td> <td></td> <td>Halogen-free</td> <td></td> <td>Low smoke</td> </tr> <tr> <td></td> <td colspan="5">Weather / UV resistant</td> </tr> </table>				Flame retardant		Halogen-free		Low smoke		Weather / UV resistant				
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PHYSICAL PROPERTIES

Physical properties	Unit	Typical value	Test method
Density*	g/cm ³	1,47	DIN EN ISO 1183-1A
Hardness*	Shore D	51	DIN ISO 48-4
Melt Flow Index (150°C; 21,6kg)	g/10 min	9,3	DIN EN ISO 1133

MECHANICAL PROPERTIES **

Thermoplastic	Unit	Typical value	Test method
Tensile strength	N/mm ²	11,6	IEC 60811-501
Elongation at break	%	185	IEC 60811-501
Tear strength	N/mm	8,5	BS 6469:99.1

■ After ageing in air oven 168h at 100°C **	Unit	Typical value	Test method
Variation in tensile strength	%	+3,6	IEC 60811-401
Variation in elongation at break	%	-15,8	IEC 60811-401

THERMAL PROPERTIES **

■ Heat tests	Unit	Typical value	Test method
Hot pressure test: penetration 6h at 90°C	%	14	IEC 60811-508

RESISTANCE **

■ UV weathering – ISO 4892-2 720h	Unit	Typical value	Test method
Variation in tensile strength	%	+5,8	IEC 60811-401
Variation in elongation at break	%	-15,8	IEC 60811-401

BURNING PROPERTIES *

■ Main burning properties	Unit	Typical value	Test method
LOI	%	46	ASTM D 2863 A
Halogen content	%	0	IEC 754-1
■ Acid gas emission	Unit	Typical value	Test method
Corrosivity: pH	-	6,0	DIN EN 60754-2
Conductivity	μS/mm	0,41	DIN EN 60754-2

* pressed plaques, 155°C / 5 min.

** extruded tapes

PROCESSING GUIDE

■ **Extruder Type**

Standard extruders for elastomeric or thermoplastic processing.

■ **Screw configuration**

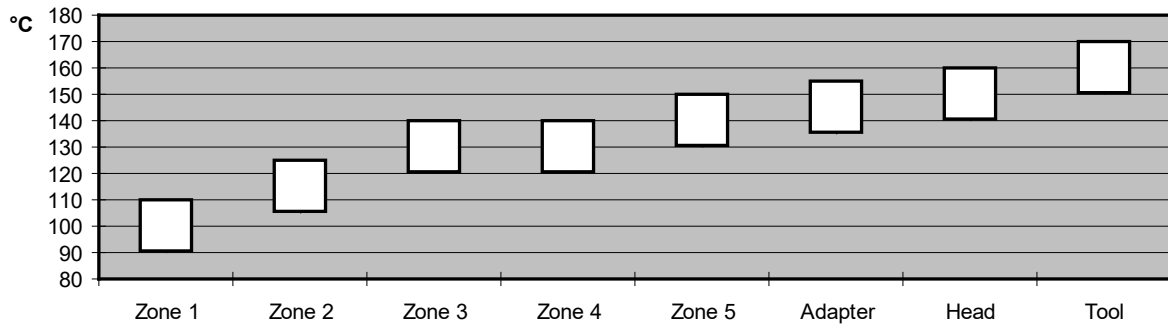
Low compression screw with L/D of 20 to 25 and compression ratio of 1:1.2

■ **Tooling**

pressure, semi-compression or tube possible

■ **Temperature profile extruder**

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



■ **Maximum mass temperature**

175 – 185°C

■ **Drying**

Predrying of Mecoline Compounds is normally not necessary provided the compound has been stored in sealed bags under cool (max. 30°C) and dry conditions.

If Mecoline Compounds are used from open bags, predrying 4–6h at a temperature of 60–70°C is recommended.

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 production

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