







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

<p>■ Compound class Insulation / Sheathing</p>	<p>■ Compound category TP</p>	<p>■ Flame retardant MDH</p>
<p>■ Standards VDE 0207 part 24 HM2, HM4 IEC 60092-300 SHF 1</p>	<p>DIN VDE 0276 part 604 HM4 DIN VDE 0250 part 215 HM5</p>	
<p>■ Operating temperature [C°] -25 to 90</p>	<p>■ Oil resistance level ★</p>	
<p>■ Typical applications <i>Halogen-free, low smoke, thermoplastic, highly flame retardant, UV-resistant compound for the insulation and sheathing of low and medium voltage cables in General Installation applications.</i></p>		
 <p>Installation</p>	 <p>Telecomm., Optical Fibre, Coaxial</p>	
<p>■ Features</p>		
 <p>Flame retardant</p>	 <p>Halogen-free</p>	 <p>Low smoke</p>
 <p>Weather / UV resistant</p>		

PHYSICAL PROPERTIES

Physical properties	Unit	Typical value	Test method
Density*	g/cm ³	1,51	DIN EN ISO 1183-1A
Hardness*	Shore D	53	DIN ISO 7619-1
Melt Flow Index (190°C; 21,6kg)	g/10 min	12,8	DIN EN ISO 1133

MECHANICAL PROPERTIES **

Thermoplastic	Unit	Typical value	Test method
Tensile strength	N/mm ²	13,0	IEC 60811-501
Elongation at break	%	185	IEC 60811-501

THERMAL PROPERTIES **

■ Heat tests	Unit	Typical value	Test method
Hot pressure test: penetration 6h at 100°C	%	30	IEC 60811-508

RESISTANCE **

■ IRM 902 4h at 70°C	Unit	Typical value	Test method
Variation in tensile strength	%	-6,1	IEC 60811-404
Variation in elongation at break	%	-6,0	IEC 60811-404
Variation in weight	%	5,0	IEC 60811-404
■ Water purified 168h at 70°C	Unit	Typical value	Test method
Variation in tensile strength	%	-4,1	IEC 60811-404
Variation in elongation at break	%	-10,0	IEC 60811-404
Variation in weight	%	1,0	IEC 60811-404

BURNING PROPERTIES *

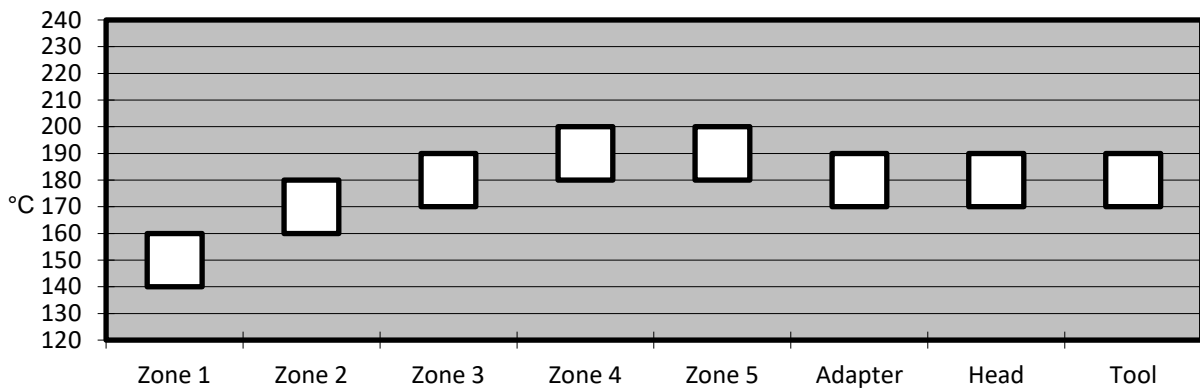
■ Main burning properties	Unit	Typical value	Test method
LOI	%	39	ASTM D 2863 A
Halogen content	%	0	IEC 754-1
■ Acid gas emission	Unit	Typical value	Test method
Corrosivity: pH (min.)	-	≥4,5	IEC 60754-2
Conductivity (max.)	μS/mm	≤10	IEC 60754-2
■ Flame Rating	Unit	Typical value	Test method
Vertical (2mm thickness)	-	V0	UL 94 V
Horizontal (2mm thickness)	-	HB	UL 94 HB

* pressed plaques, 165°C / 5 min.

** extruded tapes

PROCESSING GUIDE

<ul style="list-style-type: none"> ■ Extruder Type ■ Screw configuration ■ Tooling ■ Draw-Down Ratio (DDR) ■ Conductor Preheat ■ Screen Pack/Inch ■ Die ■ Vacuum ■ Temperature profile extruder 	<p>Standard extruders for elastomeric or thermoplastic processing with L/D of 20:1 to 24:1.</p> <p>Single flight with metering section, Barrier screws, Maddock screw with a Compression Ratio of 2:1 to 3:1</p> <p>Semi-pressure tooling improves surface finish. Tube-on Tooling: Retract guider-tip slightly into die</p> <p>Core Diameter less than 13 mm 1:1 to 1.25:1 Core Diameter greater than 13 mm 2:1</p> <p>120°C</p> <p>20/80/20 mesh</p> <p>Single tapered short land die preferred</p> <p>Though not usually necessary, on occasion may help obtain a tight jacket and offset any low DDR effect</p> <p>The profile shown below may vary slightly depending on extruder type, head design & output.</p>
---	--



<ul style="list-style-type: none"> ■ Maximum mass temperature ■ Drying 	<p>210-220°C</p> <p>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.</p> <p>If Mecoline Compounds are used from open bags, predrying 4h at a temperature of 70°C is recommended.</p>
--	---

STORAGE INFORMATION

■ Form & packaging

Pellets in sizes 2.8mm
Moisture-resistant bags (25kg) & octabins (alu-innerliner, max. 1250kg)

■ Shelf life

1 year after production

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.

IS TP 1033 F TDS ENG rev05 *05.02.2018* SK