Technical data sheet

Mecoline IS TP 1032 F UV

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

■ Compound class	■ Compound category	■ Flame retardant
Insulation / Sheathing	TP	ATH

■ Standards

VDE 0207 part 24 HM 2, HM 4	BS 7655 section 6.1 LTS 1 - LTS 4	CEI 20-11 M1
IEC 60092-360 SHF 1	DIN VDE 0276-604 HM4	VDE 0250 part 215 HM5
DIN EN 50363-7 TI6, TI7	DIN EN 50363-8 TM7	

■ Operating temperature [C°]	■ Oil resistance level
-30 to 90	★

■ Typical applications

Halogen-free, low smoke, thermoplastic, highly flame retardant compound for the insulation and sheathing of low and medium voltage cables in General Installation applications and shipboard.

Installation

Shipboard

■ Features

Flame retardant

Halogen-free

Low smoke

Weather resistant

PHYSICAL PROPERTIES

■ Physical properties	Unit	Typical value	Test method
Density*	g/cm³	**1,49**	DIN EN ISO 1183-1A
Hardness*	Shore D	**52**	DIN ISO 48-4
Melt Flow Index (150°C; 21,6kg)	g/10 min	**8,2**	DIN EN ISO 1133

MECHANICAL PROPERTIES **

■ Thermoplastic	Unit	Typical value	Test method
Tensile strength	N/mm²	**10,5**	IEC 60811-501
Elongation at break	%	**196**	IEC 60811-501
Tear strength	N/mm	**7,6**	BS 6469:99.1
■ After ageing in air oven 168h at 110°C	**Unit**	**Typical value**	**Test method**
Variation in tensile strength	%	**-2,0**	IEC 60811-401
Variation in elongation at break	%	**-9,7**	IEC 60811-401

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THERMAL PROPERTIES **

■ Heat tests	Unit	Typical value	Test method
Hot pressure test: Penetration 6h at 90°C	%	**32**	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	%	**6,4**	IEC 60811-404
Variation in weight	%	**6,0**	IEC 60811-404
■ Water purified 168h at 70°C	**Unit**	**Typical value**	**Test method**
Variation in tensile strength	%	**-8,4**	IEC 60811-404
Variation in elongation at break	%	**-26,7**	IEC 60811-404
Variation in weight	%	**1,0**	IEC 60811-404
■ UV weathering – ISO 4892-2 / 720 h	**Unit**	**Typical value**	**Test method**
Variation in tensile strength	%	**+6,9**	IEC 60811-401
Variation in elongation at break	%	**-15,3**	IEC 60811-401

BURNING PROPERTIES *

■ Main burning properties	Unit	Typical value	Test method
LOI *	%	**38**	ASTM D 2863 A
■ Acid gas emission	**Unit**	**Typical value**	**Test method**
Corrosivity: pH (min.)	-	**≥ 4,5**	IEC 60754-2
Conductivity (max.)	µS/mm	**≤ 10**	IEC 60754-2

* pressed plaques, 155°C / 5 min.
** extruded tapes

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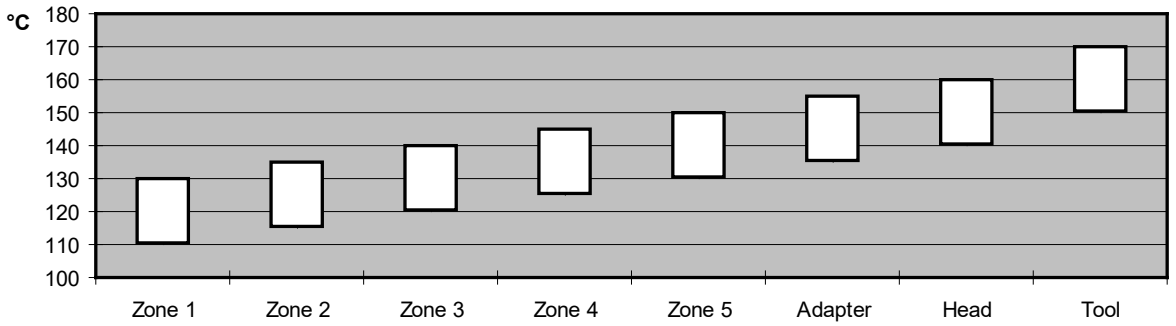
PROCESSING GUIDE

■ **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**	165 – 175°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 production

IS TP 1032 F UV TDS ENG rev 01 *15.02.2018* SK