Technical data sheet

Mecoline S TP 1045 F UV BK

Halogen-free, thermoplastic, flame retardant sheathing compound for low and medium voltage cables, UV-stable, black

■ Compound class	■ Compound category	■ Flame retardant
sheathing	TP	ATH

■ Standards

BS 7655 section 6.1 LTS1 - LTS4
VDE 0207 part 24 HM 2, HM 4
IEC 60092-360 SHF 1
DIN EN 50363-8 TM7

■ Operating temperature [°C]	■ Oil resistance level
-40 to 90	★

■ 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
- Weather / UV resistant

PHYSICAL PROPERTIES

■ Physical properties	Unit	Typical value	Test method
Density*	g/cm³	**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	**5.2**	DIN EN ISO 1133

MECHANICAL PROPERTIES **

■ Thermoplastic	Unit	Typical value	Test method
Tensile strength	N/mm²	**11.8**	IEC 60811-501
Elongation at break	%	**235**	IEC 60811-501
Tear strength @ 23°C	N/mm	**11**	BS 6469:99.1
Tear strength @ 50°C	N/mm	**6.8**	BS 6469:99.1
Tear strength @ 60°C	N/mm	**2.8**	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 100°C	Unit	Typical value	Test method
Variation in tensile strength	%	**22.8**	IEC 60811-401
Variation in elongation at break	%	**- 20.4**	IEC 60811-401

THERMAL PROPERTIES **

■ Heat tests	Unit	Typical value	Test method
Hot pressure test: penetration 6h at 90°C	%	**22**	IEC 60811-508

RESISTANCE **

■ Purified water 168h at 70°C	Unit	Typical value	Test method
Variation in tensile strength	%	**- 5**	IEC 60811-404
Variation in elongation at break	%	**- 18**	IEC 60811-404
Variation in weight	%	**1**	IEC 60811-404
■ UV weathering – ISO 4892-2 720h	Unit	Typical value	Test method
Variation in tensile strength	%	**10**	IEC 60811-401
Variation in elongation at break	%	**- 25**	IEC 60811-401

BURNING PROPERTIES *

■ Main burning properties	Unit	Typical value	Test method
LOI	%	**37**	ASTM D 2863 A

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

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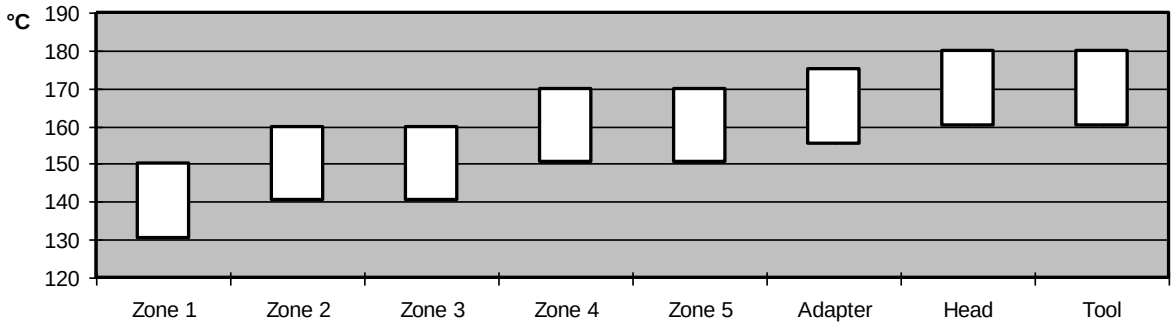
PROCESSING GUIDE

■ **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.
■ **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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