



## Technical data

### » Product Category

Thermoplastic compound

### » Based on

TPE- O

### » Characteristics

flame retardant halogen free and low smoke

### » Standards

✓ VDE 0276 part 604	HM 2, HM 4	✓ DIN EN 50363-7	TI 6, TI7
✓ DIN VDE 0281 part 14	TI 6, TM 7	✓ DIN EN 50363-8	TM7
✓ BS 7655 section 6.1	LTS 2	✓ DIN VDE 0276-604	HM4
✓ BS 6724		✓ VDE 0207 part 24	HM2
✓ IEC 60092- 359	SHF 1	✓ VDE 0250 part 215	HM5

### » Application examples

Sheathing and insulation of low and medium voltage cables

Physical properties	Unit	Typical value	Test method
Density*	g/cm <sup>3</sup>	<b>1,58</b>	DIN EN ISO 1183-1A
Hardness*	Shore D	<b>55</b>	DIN ISO 7619-1
Mooney viscosity, ML (1+4) 140°C	-	<b>38</b>	DIN 53 523
MFI (150°C; 21,6kg)	g/10min	<b>5,9</b>	DIN EN ISO 1133

Mechanical properties**	Unit	Typical value	Test method
Tensile strength	N/mm <sup>2</sup>	<b>11,0</b>	IEC 811-1-1
Elongation at break	%	<b>186</b>	IEC 811-1-1
<b>Ageing in air oven 240h at 100°C</b>			
Tensile strength	N/mm <sup>2</sup>	<b>11,6</b>	IEC 811-1-2
Variation	%	<b>+5,5</b>	
Elongation at break	%	<b>181</b>	
Variation	%	<b>-2,7</b>	
<b>Ageing in air oven 168h at 110°C</b>			
Tensile strength	N/mm <sup>2</sup>	<b>9,9</b>	IEC 811-1-2
Variation	%	<b>-10,0</b>	

Elongation at break	%	<b>179</b>	
Variation	%	<b>-3,8</b>	
<b>Thermomechanical properties *</b>	Unit	Typical value	Test method
<b>Pressure test at high temperature</b>			
Penetration 6h at 80°C	%	<b>1</b>	DIN VDE 0472-609
Penetration 6h at 90°C	%	<b>8</b>	

<b>Resistivity **</b>	Unit	Typical value	Test method
<b>Immersion test – IRM 902 6h at 70°C</b>			
Tensile strength	N/mm <sup>2</sup>	<b>7,3</b>	IEC 811-2-1
Variation	%	<b>-33,6</b>	
Elongation at break	%	<b>165</b>	
Variation	%	<b>-11,3</b>	
<b>Immersion test – IRM 902 72h at 50°C</b>			
Tensile strength	N/mm <sup>2</sup>	<b>8,2</b>	IEC 811-2-1
Variation	%	<b>-25,5</b>	
Elongation at break	%	<b>151</b>	
Variation	%	<b>-18,6</b>	
Absorption	%	<b>10,7</b>	

<b>Electrical properties *</b>	Unit	Typical value	Test method
Volume resistivity at 23°C / 500V	Ω m	<b>1,5 x 10<sup>12</sup></b>	DIN IEC 60093
Voltage resistance at 50 Hz / 23°C	kV / mm	<b>20,4</b>	IEC 60243-1

<b>Flame properties *</b>	Unit	Typical value	Test method
LOI	%	<b>37</b>	ASTM D 2863 A
Temperature index	°C	<b>295</b>	NES 715

\* tests done on pressed plates, 155°C / 5 min.

\*\* tests done on extruded tapes

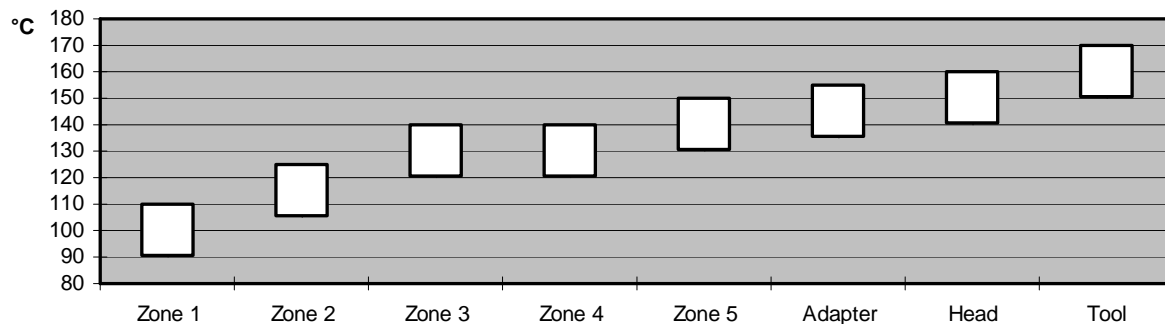
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to establish for themselves the suitability of our products in their cable construction. The above values should not be used for quality control purposes.

## Processing Guide

<b>Extruder Type</b>	Standard extruders for elastomeric or thermoplastic processing
<b>Screw features</b>	Low compression screw with L/D of 20 to 25 and compression ratio of 1:1.2
<b>Tooling</b>	pressure, semi-compression or tube possible

### Temperature profile extruder



**Maximum melt temperature** 160 – 170°C

This profile will vary slightly depending on extruder type, head design and output.

### 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.

### Form & Packing

Pellets in sizes 2.8mm & 5.5mm  
PE-bags (25 kg), Octabins (1.000-2.000 kg), BigBags (max. 1250 kg)

### Shelf life

1 year after production