








Irradiation cross-linkable, halogen-free, flame retardant compound

<p>■ Compound class Insulation / sheathing</p>	<p>■ Compound category </p>	<p>■ Flame retardant MDH</p>
<p>■ Standards DIN/VDE DKE AK 411.2.3</p>	<p>TÜV 2PFG 1169/08.2007</p>	
<p>■ Operating temperature [C°] -40 to 125</p>	<p>■ Oil resistance level ★★★</p>	
<p>■ Typical applications <i>A flame retardant, halogen-free and low smoke, oil resistant compound. Max. operating temperature 125°C.</i></p>		
		
<p>Green-Energy</p>		
<p>■ Features</p>		
 Flame retardant	 Halogen-free	 Low smoke
 Oil resistant	 High temperature resistant	

PHYSICAL PROPERTIES

Physical properties	Unit	Typical value	Test method
Density*	g/cm ³	1,38	DIN EN ISO 1183-1A
Hardness*	Shore D	45	DIN ISO 7619-1
Melt Flow Index (165°C; 21,6kg)	g/10 min	8,0	DIN EN ISO 1133

MECHANICAL PROPERTIES

Before crosslinking **	Unit	Typical value	Test method
Tensile strength	N/mm ²	11,5	IEC 60811-501
Elongation at break	%	229	IEC 60811-501
After crosslinking ***	Unit	Typical value	Test method
Tensile strength (80kGy)	N/mm ²	18,0	IEC 60811-501
Elongation at break (80kGy)	%	213	IEC 60811-501
After ageing in air oven 1008h at 155°C ***	Unit	Typical value	Test method
Variation in tensile strength	%	+20,0	IEC 60811-401
Variation in elongation at break	%	-21,1	IEC 60811-401

■ After ageing in air oven 480h at 165°C ***	Unit	Typical value	Test method
Variation in tensile strength	%	+11,1	IEC 60811-401
Variation in elongation at break	%	-24,9	IEC 60811-401
■ After ageing in air oven 144h at 180°C ***	Unit	Typical value	Test method
Variation in tensile strength	%	+5,9	IEC 60811-401
Variation in elongation at break	%	-20,2	IEC 60811-401

THERMAL PROPERTIES***

■ Pressure test at high temperature	Unit	Typical value	Test method
Penetration 4h at 140°C	%	8	IEC 60811-508
■ Hot set test at 200°C / 15min / 0,2 MPa	Unit	Typical value	Test method
Elongation under load	%	25	IEC 60811-507
Elongation after unloading	%	10	IEC 60811-507
■ Hot set test at 250°C / 15min / 0,2 MPa	Unit	Typical value	Test method
Elongation under load	%	50	IEC 60811-507
Elongation after unloading	%	15	IEC 60811-507

ELECTRICAL PROPERTIES*

■ Major electrical properties	Unit	Typical value	Test method
Volume resistivity at 23°C / 500V	Ω cm	3,5 x 10¹⁴	DIN IEC 60093
Volume resistivity at 90°C / 500V	Ω cm	6,6 x 10¹¹	DIN IEC 60093

RESISTANCE ***

■ Fluid IRM 902 24h at 100°C	Unit	Typical value	Test method
Variation in tensile strength	%	-19,1	IEC 60811-404
Variation in elongation at break	%	-28,0	IEC 60811-404
Variation in weight	%	+16,3	IEC 60811-404
■ 1N NaOH 168h at 23°C	Unit	Typical value	Test method
Variation in tensile strength	%	-8,9	IEC 60811-404
Variation in elongation at break	%	+11,3	IEC 60811-404
■ 1N Oxalic acid 168h at 23°C	Unit	Typical value	Test method
Variation in tensile strength	%	-15,0	IEC 60811-404
Variation in elongation at break	%	+11,7	IEC 60811-404

BURNING PROPERTIES*

■ Main burning properties	Unit	Typical value	Test method
LOI	%	30	ASTM D 2863 A

* pressed plaques

** extruded tapes

*** cross-linked plaques or tapes

PROCESSING GUIDE

■ **Screw configuration**

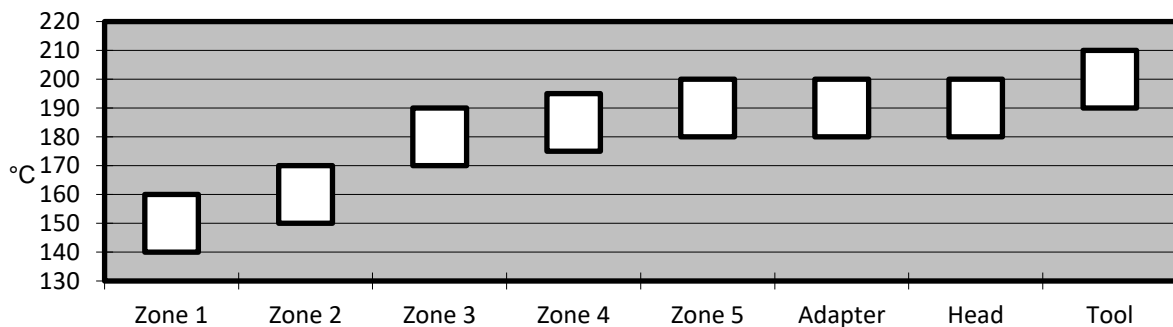
Low compression screw with L/D of 20 to 25 and compression ratio of 1:1.2.

■ **Extruder Type**

Standard extruders for elastomeric or thermoplastic processing.

■ **Tooling**

Pressure, semi-compression or tube possible.



■ **Maximum melt temperature**

190 - 200°C

■ **Drying**

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

If Mecoline compounds used from open bags, pre-drying 4–6 hours at a temperature of 60–70°C is recommended.

STORAGE INFORMATION

■ **Form & packaging**

Pellets in sizes 2.8mm
PE-bags (25kg), Octabins (1.000-2.000 kg), BigBags (max. 1.250 kg)

■ **Shelf life**

1 year after production

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