











Radiation cross-linkable, flame retardant compound for insulation and sheathing applications

<p>■ Compound class Insulation / sheathing</p>	<p>■ Compound category </p>	<p>■ Flame retardant Halogenated</p>
<p>■ Standards VG 95218, Part 24 (Type K), Part 25 (Type G) Part 27 (Type B), Part 28 (Type A and D)</p>		
<p>■ Operating temperature [C°] -50 to 150</p>	<p>■ Oil resistance level ★★★★</p>	
<p>■ Typical applications <i>System cabling for military vehicles, aerospace, sensor technology, engine & transformer construction, automotive motor compartments and industrial automation and process controls.</i></p>		
		
<p>Marine, Aerospace, Defence</p>	<p>Automotive</p>	
<p>■ Features</p>		
 Flame retardant	 Low smoke	 Oil resistant
 High temperature Resistant	 Abrasion resistant	 Flexible
 Flexible at low temperatures		

PHYSICAL PROPERTIES

Physical properties	Unit	Typical value	Test method
Density*	g/cm ³	1.3	DIN EN ISO 1183-1A
Hardness*	Shore D	28	DIN ISO 48-4
Melt Flow Index (190°C; 2,16kg)	g/10 min	4.3	DIN EN ISO 1133
Abrasion*	-	Excellent	VG 95218/ 27

MECHANICAL PROPERTIES

Before crosslinking **	Unit	Typical value	Test method
Tensile strength	N/mm ²	>10	IEC 60811-501
Elongation at break	%	>600	IEC 60811-501

■ After crosslinking ***	Unit	Typical value	Test method
Tensile strength (130kGy)	N/mm ²	19	IEC 60811-501
Elongation at break (130kGy)	%	400	IEC 60811-501

THERMAL PROPERTIES***

■ Low temperature tests	Unit	Typical value	Test method
Elongation at break at -40°C	%	>150	IEC 60811-505
Elongation at break at -50°C	%	>30	IEC 60811-505
■ Hot set test at 200°C / 15min / 0,2MPa	Unit	Typical value	Test method
Elongation under load	%	25	IEC 60811-507
Residual elongation	%	10	IEC 60811-507

ELECTRICAL PROPERTIES*

■ Major electrical properties	Unit	Typical value	Test method
Volume resistivity	Ω cm	10¹³	ASTM D 257
Dielectric strength	kV/mm	20	ASTM D 2671
Dielectric constant at 50Hz	-	4.8	ASTM D 150

BURNING PROPERTIES*

■ Main burning properties	Unit	Typical value	Test method
LOI	%	28	ASTM D 2863 A
Flammability	-	Pass	UL VW-1

* pressed plaques

** extruded tapes

*** cross-linked plaques or tapes

Processing Guide

■ **Screw configuration**

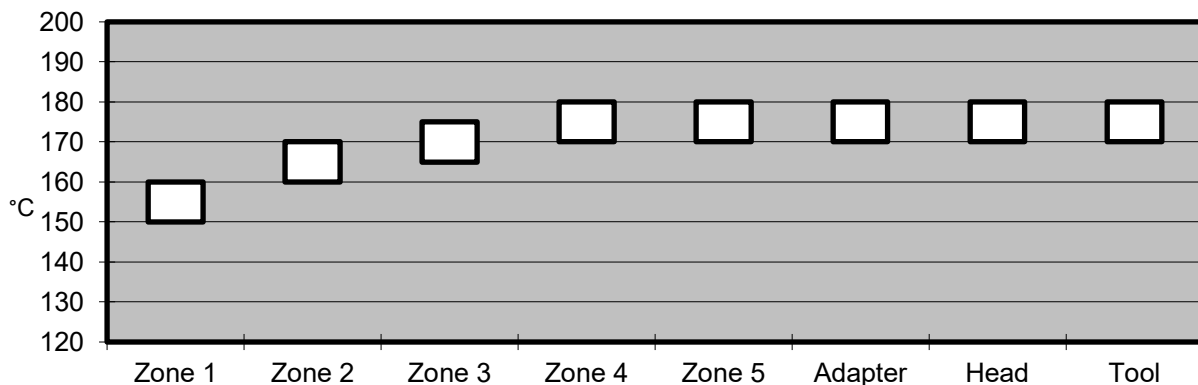
Barrier type screw (BM) having high flights and a L/D-ratio > 24:1

■ **Extrusion dies**

With both pressure tooling and tube extrusion, good results have been achieved

■ **Temperature profile extruder**

The profile shown below may vary slightly depending on extruder type, head design & output.



■ **Maximum mass temperature**

190°C

■ **Wire/conductor**

For insulation applications a tin coated conductor is recommended

■ **Drying**

Pre-dry at 50°C during 3 hrs

■ **Recommended colour master batches**

We recommend to use high quality, well dispersed EVA master batch 0,5-1,0%. For black jacket applications, UV resistance can be obtained by adding a higher level of master batch depending on requirements and type of carbon black master batch used.

Crosslinking information

■ **Recommended radiation dose**

120-150kGy

Storage information

■ **Form & packaging**

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

■ **Shelf life**

1 year after production

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