Mecoline IS RDX 5234 F



Radiation cross-linkable, flame retardant compound

■ Compound class

Insulation / sheathing

RDX

■ Flame retardant

CSA CL 1251, 1503

Halogenated

■ Standards

SAE J1128 TXL, GXL and SXL; UL 3289, 3321

■ Operating temperature [C°]

-50 to 150

SAE J1127 STX and SGX CSA AWM I A/B

■ Compound category

■ Oil resistance level

■ Typical applications

Motor lead wires for coil connections, class F motors and transformers, pumps, solenoids, Internal wiring of appliances, sensor wires, flexible battery cables and wire insulation of low voltage multicore cables for road vehicles.





General Applications

Automotive

■ Features



Flame retardant





Flexible at low temperatures





Oil resistant



Flexible

PHYSICAL PROPERTIES

■ Physical properties	Unit	Typical value	Test method
Density*	g/cm ³	1.2	DIN EN ISO 1183-1A
Melt Flow Index (190°C; 21,6 kg)	g/10 min	4	DIN EN ISO7619-1
Hardness*	Shore D	50	DIN ISO 7619-1

MECHANICAL PROPERTIES

■ Thermoplastic / Before cross-linking **	Unit	Typical value	Test method
Tensile strength	N/mm²	15	IEC 60811-501
Elongation at break	%	500	IEC 60811-501
■ After crosslinking ***	Unit	Typical value	Test method
Tensile strength (120 kGy)	N/mm²	17	IEC 60811-501
Elongation at break (120 kGy)	%	330	IEC 60811-501
Abrasion resistance	-	Excellent	

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THERMAL PROPERTIES ***

■ Low temperature tests	Unit	Typical value	Test method
Elongation at break at -55°C (100-150 kGy)	%	>30	IEC 60811-505
■ Hot set test at 200°C / 15min / 0,2MPa	Unit	Typical value	Test method
Elongation under load	%	30	IEC 60811-507
Residual elongation	%	<10	IEC 60811-507

ELECTRICAL PROPERTIES*

■ Major electrical properties	Unit	Typical value	Test method
Volume resistivity	Ω cm	10 ¹⁵	ASTM D 257
Dielectric strength	kV/mm	25	ASTM D 149
Dielectric constant at 50Hz 20°C	-	2.9	ASTM D 150

BURNING PROPERTIES*

■ Main burning properties	Unit	Typical value	Test method
LOI	%	27	ASTM D 2863 A
UL	-	Pass	UL 224

^{*} pressed plaques

^{**} extruded tapes

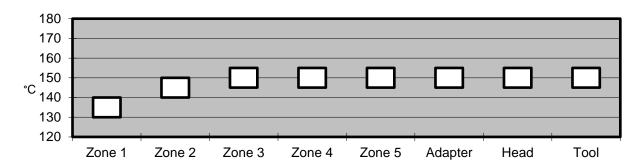
^{***} cross-linked plaques or tapes

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PROCESSING GUIDE

■ Screw configuration	Barrier type screw (BM) having high flights and a L/D-ratio > 24:1
■ Screw cooling	For high line speeds, cooling the screw to around 80°C can be very effective although this could lead to pulsation
■ Screen pack	40/60/80/40 mesh
■ Extrusion dies	Pressure or tube. For pressure extrusion, normal dies are recommended.
■ Die opening	Die opening approximately slightly below the required OD of the wire.
■ Temperature profile extruder	The profile shown below may vary slightly depending on extruder type, head design & output.



■ Maximum mass temperature
 ■ Conductor pre-heating
 ■ Wire/conductor
 ■ Quenching
 ■ Drying
 ■ Recommended colour master batches
 ■ 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.

CROSS-LINKING INFORMATION

■ Recommended radiation dose 100-150 kGy

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

Note: The information given in this datasheet is believed to be accurate and reliable. However, no warranty, express or implied, or guarantee is given as to the suitability, accuracy, reliability or completeness of the information. This information does not hold us liable for damages or penalties resulting from following our suggestions or recommendations.

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