Compound RDX 4225-JA-F

Radiation crosslinkable fluoroelastomeric compound for high continuos operating temperature (225 C / 440 F) and fluid resistant applications in the automotive, military, aerospace and chemical industry. This compound can be processed as a thermoplastic compound on standard PE or PVC extruders.

Compound properties

Compound RDX 4225-JA-F s a radiation crosslinkable compound offering superior chemical resistance, flame-retardancy and extremely high temperature resistance properties. The specially selected combination of fluoroelastomers, fluoropolymers, processing aids and additives makes this compound an excellent choice for the manufacturing of flexible wires and cables for applications in harsh environments in the military, aerospace and chemical industry.
***The compound can be extruded on standard PE extruders*.**

Compound characteristics:

Specific gravity	**ASTM D 792**	**1.9**
Water absorption (24 h, 23 C / 73 F)	**ASTM D 570**	**0.1 %**
LOI	**ASTM D 2868**	**45 %**
Burning rate	**UL 94**	**V-0**

Extrusion

Recommended extrusion temperature profile : 190 C - 210 C - 220 C - 220 C - 225 C
(375 F - 410 F - 430 F - 430 F - 435 F)

Crosslinking

Recommended dose : 75 - 150 kGy (*)

(*) : A typical dose of 75 kGy will result in a hot-set-elongation < 75% (at 200 C and 20 N/cm2). We recommend to do some initial tests to find the optimum for the required application.

Fluid resistance

The RDX 4225-JA-F compound shows an excellent resistance at elevated temperatures against fluids such as: Automotive gasoline, brake fluid, diesel fuel, engine oil, engine coolant, aviation de-icing fluid, grease hydraulic fluids, aviation turbine fuel, JP-8, silicon based damping fluid, IRM 902-oil, 1,1,1-trichlorethane, methylethylketone, lubricating oil and skydrol.

Packaging:
The compound is packed in 25 kg (55 lbs) sealed PE bags.
We recommend to store the bags below 30 C (85 F)

Should you decide to process the RDX4225-JA-F compound on an extruder, which is also used for processing other compounds , the screw, extruderhead, tooling and other devices should be cleaned thoroughly.

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Compound RDX 4225-JA-F

Radiation crosslinkable fluoropolymer based compound for high continuous operating temperature (225 C/ 440 F) and fluid resistant applications in the automotive, military, aerospace and chemical industry. This compound can be processed as a thermoplastic compound on standard PE or PVC extruders.

Jacketing properties

Cable and wire made of this compound will show a continuous operating temperature of 225 C (440 F). The excellent heat-ageing properties allows the product to withstand 400 °C (750 F) for short periods. Cable and wires manufactured from this compound will show high resistance against ozone, oxidation and weathering. The chemical resistance against a wide range of fluids and the excellent abrasion and cut-through resistance makes this compound an ideal choice for flexible applications in the automotive, aerospace, military, chemical or other industries, where high performance takes first place.

Property (*)	Test Method	Typical value
Physical		
Tensile strength at break	ASTM D 638	12 Mpa (1750 psi)
Elongation at break	ASTM D 638	> 200%
Thermal		
Continuous operating temperature		-55 C to +225 C (-67 F to +440 F)
Heat shock (4 hrs @ 300 C / 570 F)	ASTM D 2671	No cracking, dripping, flowing
Heat ageing (168 hrs @ 250 C / 480 F)	ASTM D 638	Elongation 200%
Low temp. flexibility (-55 C / -67 F)	ASTM D 2671C	No cracking
Cold impact (-40 C / - 40 F)	ASTM D 746	No cracking
Flammability		Self extinguishing
Chemical		
Fungus resistance	SAE AMS-DTL-7444	Inert
Fluid resistance	SAE AMS-DTL-23053/18	Excellent
Copper corrosion (16 hr @ 175 C / 350 F)	ASTM D 2671 A and B	Does not corrode copper
Electrical		
Dielectric strength	ASTM D 2671	10 kV/mm (250 volts/mil)
Volume resistivity	ASTM D 257	10 @ 12 ohm.cm

(*) Property after crosslinking.

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