

Technical Information

FLUONOX™ KR370 is a fluoroelastomer terpolymer consisting of VDF, HFP and TFE. FLUONOX™ KR370 is suitable for applications which need improved chemical resistance and long term heat resistance compared to fluoroelastomer copolymer. This grade is designed for compression molding of shaft seals, valve stem seals, O-rings, bonded seals and gaskets. FLUONOX™ KR370 does not contain curatives. It can be cured with diamines cure system/bisphenol cure system.

Product features

- Good compression set
- Good mould release
- Less mould fouling

Properties

Properties	Value	Unit	Method
Appearance	Translucent		
Specific gravity at 23°C (73°F)	1.87	gm/cm ³	ASTM D792
Mooney viscosity (ML1+10) at 121°C (250°F)	70	MU	ASTM D1646
Solubility	Dissolves in ketone and esters		
Shelf stability at Room temp	Excellent		
Fluorine content	68	%	Internal NMR Method

Note-These are typical properties and not to be used for specification purpose

Packaging

FLUONOX™ KR370 is available in 25 Kg corrugated box.

Standard formulation of Compound

Formulation	Bisphenol Cure		
FLUONOX™ KR370	100 Parts		
Fluonocure™ #1	4.2 Parts		
N-990 carbon black	30 Parts	Thermax N-990 CANCARB Ltd.	
Magnesium oxide	3 Parts	Kyowamag 150Kyowa Chemical Ind. Co.Ltd.	
Calcium hydroxide	6 Parts	OMM-2	Ohmi Kagaku Kogyo Co.,Ltd.

MDR 6min at 177 °C (351°F) arc 0.5°

Properties	Unit	Value	Method
ML	Lbf.in	1.91	ASTM D6601
MH	Lbf.in	20.4	
Ts2	Min	2.15	
Tc50	Min	3.08	
Tc90	Min	4.19	

Physical Properties:

Press cure 10 min at 170 °C (338°F)

Post cure 24 hours at 230°C (446°F)

Properties	Unit	Value	Method
100% Modulus	MPa(psi)	7(1015)	ASTM D412
Tensile strength	MPa(psi)	14(2031)	
Elongation	%	230	
Hardness	Shore A	77	ASTM D2240

Note- The properties result given in technical data sheet are tested with proprietary materials listed above. Equivalent chemicals can be also used, however under such case, there may be little variation in properties.

Compression Set: 70 hours at 200 °C (392°F)

Properties	Unit	Value	Method
Compression set	%	25	ASTM D395 Method B

Safety and Handling

Handling and processing of fluoroelastomer must be done in ventilated areas to prevent personnel exposure to the fumes liberated during curing or use of cured rubber at high temperature. During the process, some fumes may generate at high temperature which are harmful for human beings. Fumes should not be inhaled, eye and skin contact must be avoided. In case of skin contact flush skin with cold water immediately. In case of eye contact, flush with water immediately and seek medical help. Smoking tobacco or cigarettes should not be allowed in working area. Mixing agents that contain metallic particulate such as powdered aluminum can rapidly decompose at high temperature; therefore do not use metallic particulate as mixing agent. Fluoroelastomer should be stored away from heat. It should be kept in clean and dry area where it can be protected until it is used. Please read the Material Safety Data Sheet before handling the product.

Disclaimer

FLUONOX™ is the brand name of Gujarat Fluorochemicals Limited (GFL) used for its brand of fluoroelastomer. FLUONOX™ can be used in applications duly approved by GFL. Customers who plan to use the word FLUONOX™ as the trade mark on or relation to their own fluoroelastomer parts and other products in any style or combination or in any manner whatsoever must contact GFL for prior permission for such use. No consumer/user of GFL fluoropolymer resin is permitted to claim that their products contain FLUONOX™ without prior permission from GFL.

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Note warning

Do not use any of FLUONOX™ Fluoroelastomer in medical devices that are designed for permanent implantation in the human body. For other medical uses, prior permission of GFL may be sought.

For more information, please contact Gujarat Fluorochemicals Limited

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