

KR470

Raw gum Terpolymer

TECHNICAL DATA SHEET

TECHNICAL INFORMATION

FLUONOX[®] KR470 is a high viscosity terpolymer with 68.5% Fluorine content, consisting of VDF, HFP, and TFE. FLUONOX[®] KR470 does not contain curatives, it can be cured with diamine or bisphenol AF curing systems. FLUONOX[®] KR470 shows the typical chemical resistance of FKM terpolymers, thus it is used where better chemical resistance compared to standard FKM copolymer is required. It is suitable for compression and transfer moulding of shaft seals, valve stem seals, gaskets where good chemical resistance is required.

PRODUCT FEATURES

- Excellent chemical resistance to mineral oils
- Outstanding heat resistance
- Lack of mold fouling
- Good mold release

TYPICAL PROPERTIES

Properties	Test Method	Unit	Nominal Value
Appearance	-	-	Off white slab
Specific gravity at 23°C (73°F)	ASTM D792	gm/cm ³	1.85
Mooney viscosity ML (1+10) at 121°C (250°F)	ASTM D1646	MU	65
Solubility	-	-	Dissolves in ketone and esters
Shelf stability at room temp.	-	-	Excellent
Fluorine content	Internal NMR method	%	68.5

Note: These are typical properties and not to be used for specification purposes.

PACKAGING

FLUONOX[®] KR470 is available in 25kg box.

FLUONOX® KR470

STANDARD FORMULATION OF COMPOUND

Formulation	Value		
FLUONOX® KR470	100		
Bisphenol AF	2.0 phr		GFL
BTPPC	0.5 phr		GFL
N-990 carbon black	30 phr	Thermax N-990	Cancarb Ltd.
Magnesium oxide	3 phr	Kyowamag 150	Kyowa Chemical Industry Co. Ltd.
Calcium hydroxide	6 phr	OMM-2	Ohmi Kagaku Kogyo Co., Ltd

MDR 6min at 177°C (351°F), arc 0.5°

Properties	Test Method	Unit	Value
ML	ASTM D6601	lbf x in	1.6
MH	ASTM D6601	lbf x in	16.0
ts2	ASTM D6601	min	3.5
tc50	ASTM D6601	min	4.8
tc90	ASTM D6601	min	5.6

PHYSICAL PROPERTIES

Press cure 10 min at 170°C (338°F); Post cure 24 hours at 230°C (446°F)

Properties	Test Method	Unit	Value
100% Modulus	ASTM D412	MPa (psi)	5.0 (725)
Tensile strength	ASTM D412	MPa (psi)	14.0 (2030)
Elongation at break	ASTM D412	%	230
Shore A Hardness	ASTM D2240	Points	73

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

Properties	Test Method	Unit	Value
Compression set	ASTM D395 Method B	%	23

Note: The values of properties mentioned in the technical data sheet are tested with proprietary materials listed above. Equivalent chemicals can also be used, however under such a case; there may be a little variation in the value of properties.

FLUONOX® KR470

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 temperatures. During the process, some fumes may generate at high temperatures which are harmful to 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 the working area. Mixing agents that contain metallic particulate such as powdered Aluminium can rapidly decompose at high temperatures; therefore do not use metallic particulate as a mixing agent. Fluoroelastomer should be stored away from heat. It should be kept in a clean and dry area where it can be protected until it is used. Please read the Material Safety Data Sheet before handling the product.

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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.

SALES AND TECHNICAL SUPPORT

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