FLUONOX®

Fluoroelastomer

KB4303

Cure incorporated Terpolymer

Technical Information

FLUONOX® KB4303 is a 68.5% fluoroelastomer terpolymer which consist of HFP, VDF and TFE. FLUONOX® KB4303 is Bisphenol AFcure incorporated fluoroelastomer. It is suitable for injection moulding. FLUONOX® KB4303 grade is an excellentchoice for making O rings, seals and gaskets. It shows improved chemical resistance than copolymers in polar fluids and oxygenated gasoline.

Product features

- Low viscosity Terpolymer
- Excellent chemical resistance
- Good choice for O rings and seals

Properties

Properties	Value	Unit	Method
Appearance	Off white slab		
Specific gravity at 23°C (73F)	1.85	gm/cm^3	ASTM D792
Mooney viscosity - ML (1+10)' at 121°C (250F)	30	MU	ASTM D1646
Solubility	Dissolves in ketone and esters		
Shelf stability at room temp.	Excellent		
Fluorine content	68.5	%	Internal NMR Method

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

Packaging

Fluonox®KBKB4303 is available in 25kg box.

Standard formulation of Compound

Formulation	Value		
Fluonox®KBKB4303	100		
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 (351F), arc 0.5°

Properties	Value	Unit	Method
ML	0.75	lbf x in	ASTM D6601
MH	19.0	lbf x in	ASTM D6601
ts2	1.6	min	ASTM D6601
tc50	2.0	min	ASTM D6601
tc90	2.8	min	ASTM D6601

Physical properties:

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

Properties	Value	Unit	Method
100% Modulus	6.0 (870)	MPa (psi)	ASTM D412
Tensile strength	12.0 (1740)	MPa (psi)	ASTM D412
Elongation at break	190	%	ASTM D412
Shore A Hardness	75	Points	ASTM D2240

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

Properties	Value	Unit	Method
Compression Set	23	%	ASTM D395 Method B

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

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 aluminium 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

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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

Corporate & Marketing office:

Inox Towers, Plot no. 17, Sector 16/A
Noida-202301, U.P., INDIA
Tel: +91-120-6149600
Fax: +91-120-6149610

Works:

12/A, GIDC Dahej Industrial Estate.
Tehsil- Vagra, Distt. Bharuch-392230
Gujarat, INDIA
Website: www.fluonox.co.in;
www.gfl.co.in
Email: contact@gfl.co.in

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