

KB2453

Cure incorporated copolymer

TECHNICAL DATA SHEET

TECHNICAL INFORMATION

FLUONOX[®] KB2453 is a fluoroelastomer copolymer which consists of HFP and VDF. FLUONOX[®] KB2453 is Bisphenol AF cure incorporated medium-low viscosity fluoroelastomer, which is suitable for compression moulding, transfer moulding, extrusion, and calendaring. FLUONOX[®] KB2453 grade is an excellent choice for making O rings, gaskets, and seals.

PRODUCT FEATURES

- High cross link density
- Excellent compression set resistance
- Excellent scorch safety
- Improved mould release
- No mould fouling

TYPICAL PROPERTIES

Properties	Test Method	Unit	Nominal Value
Appearance	-	-	Off white slab
Specific gravity at 23°C (73°F)	ASTM D792	gm/cm ³	1.81
Mooney viscosity ML (1+10)' at 121°C (250°F)	ASTM D1646	MU	45
Solubility	-	-	Dissolves in ketone and esters
Shelf stability at room temp.	-	-	Excellent
Fluorine content	Internal NMR method	%	66

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

PACKAGING

FLUONOX[®] KB2453 is available in 25kg box.

FLUONOX® KB2453

STANDARD FORMULATION OF COMPOUND

Formulation	Value		
FLUONOX® KB2453	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 (351°F), arc 0.5°

Properties	Test Method	Unit	Value
ML	ASTM D6601	lbf x in	1.6
MH	ASTM D6601	lbf x in	23.6
ts2	ASTM D6601	min	1.6
tc50	ASTM D6601	min	2.3
tc90	ASTM D6601	min	3.5

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)	7.5 (1088)
Tensile strength	ASTM D412	MPa (psi)	15.0 (2176)
Elongation at break	ASTM D412	%	190
Shore A Hardness	ASTM D2240	Points	77

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

Properties	Test Method	Unit	Value
Compression set	ASTM D395 Method B	%	15

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® KB2453

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.

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 trademark on or relation to their fluoroelastomer parts and other products in any style or combination or any manner whatsoever must contact GFL for prior permission for such use. No consumer/user of GFL fluoroelastomer is permitted to claim that their products contain FLUONOX® without prior permission from GFL.

The information provided in the bulletin is furnished at no cost to the recipient and is based on the information and technical data that Gujarat Fluorochemicals Limited believes is correct and sound. Those who choose to use the information must be technically qualified, and do so entirely at their own cost and risk. The users must determine and ensure that their specific conditions of processing present no health or safety hazards. GFL does not warranty, either expressly or impliedly in respect of the use of this information for application of its FLUONOX® branded fluoroelastomer and shall bear no liability as a result of any loss or damage caused directly or indirectly due to use of any information provided in this bulletin. Nothing contained herein can be taken or construed as a grant of license by GFL to operate under or a recommendation to infringe any patents.

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

Corporate & Marketing Headquarter

Gujarat Fluorochemicals Limited

INOX Towers, 17, Sector-16A,

Noida - 201301 U.P., India

+91 120 6149600

Europe

Gujarat Fluorochemicals GmbH

Regus Center Watermark 14th Floor,

Überseeallee 10, 20457 Hamburg, Germany

+49 40 808074-667/668

Works

Gujarat Fluorochemicals Limited

12/A Dahej, GIDC, Industrial Estate,

Tehsil Vagra, Dist. Bharuch 392130, Gujarat, India

+91 2641 618003

Americas

GFL Americas, LLC

1212 Corporate Dr., Suite-540,

Irving, TX 75038, USA

+1 512 446 7700

