

## KB4303

Cure incorporated Terpolymer

### TECHNICAL DATA SHEET

#### TECHNICAL INFORMATION

FLUONOX<sup>®</sup> KB4303 is a 68.5% fluoroelastomer terpolymer which consists of HFP, VDF, and TFE. FLUONOX<sup>®</sup> KB4303 is Bisphenol AFcure incorporated fluoroelastomer. It is suitable for injection moulding. FLUONOX<sup>®</sup> KB4303 grade is an excellent choice 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

#### TYPICAL PROPERTIES

| Properties                                      | Test Method         | Unit               | Nominal Value                  |
|-------------------------------------------------|---------------------|--------------------|--------------------------------|
| Appearance                                      | -                   | -                  | Off white slab                 |
| Specific gravity at 23°C (73°F)                 | ASTM D792           | gm/cm <sup>3</sup> | 1.85                           |
| Mooney viscosity<br>ML (1+10)' at 121°C (250°F) | ASTM D1646          | MU                 | 30                             |
| 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<sup>®</sup> KB4303 is available in 25kg box.

# FLUONOX® KB4303

## STANDARD FORMULATION OF COMPOUND

| Formulation        | Value  |               |                                  |
|--------------------|--------|---------------|----------------------------------|
| FLUONOX® KB4303    | 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 | 0.75  |
| MH         | ASTM D6601  | lbf x in | 19.0  |
| ts2        | ASTM D6601  | min      | 1.6   |
| tc50       | ASTM D6601  | min      | 2.0   |
| tc90       | ASTM D6601  | min      | 2.8   |

## 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) | 6.0 (870)   |
| Tensile strength    | ASTM D412   | MPa (psi) | 12.0 (1740) |
| Elongation at break | ASTM D412   | %         | 190         |
| Shore A Hardness    | ASTM D2240  | Points    | 75          |

## 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® KB4303

## 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.

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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.

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