

KR520P

Peroxide curable Raw Terpolymer

TECHNICAL DATA SHEET

TECHNICAL INFORMATION

FLUONOX® KR 520P is a low viscosity, high fluorine (70%) peroxide curable terpolymer. It can be cross-linked using organic peroxides in combination with coagent. FLUONOX® KR520P can be used for compression, injection, and transfer moulding of shaft seals, O-rings, gaskets, and extrusion of hoses.

PRODUCT FEATURES

- No mould fouling
- Outstanding Flow behavior
- Best chemical resistance among fluoroelastomers
- Excellent resistance in steam
- Good resistance in alcohol containing fuels

TYPICAL PROPERTIES

| Properties | Test Method | Unit | Nominal Value |
|---|---------------------|--------------------|--------------------------------|
| Appearance | - | - | Off white slab |
| Specific gravity at 23°C (73°F) | ASTM D792 | gm/cm ³ | 1.90 |
| Mooney viscosity ML (1+10)' at 121°C (250°F) | ASTM D1646 | MU | 20 |
| Solubility | - | - | Dissolves in ketone and esters |
| Shelf stability at room temp. | - | - | Excellent |
| Fluorine content | Internal NMR method | % | 70.4 |

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

PACKAGING

FLUONOX® KR520P is available in 25kg box.

FLUONOX® KR520P

STANDARD FORMULATION OF COMPOUND

| Formulation | Value | | |
|--------------------|--------|---------------|--------------|
| FLUONOX® KR520P | 100 | | |
| N-990 carbon black | 30 phr | Thermax N-990 | Cancarb Ltd. |
| TAIC (100%) | 3 phr | | |
| Luperox #101XL45 | 3 phr | Arkema | |
| ZnO | 5 phr | | |

MDR 6min at 177°C (351°F), arc 0.5°

| Properties | Test Method | Unit | Value |
|------------|-------------|----------|-------|
| ML | ASTM D6601 | lbf x in | 0.5 |
| MH | ASTM D6601 | lbf x in | 30.0 |
| ts2 | ASTM D6601 | min | 0.50 |
| tc50 | ASTM D6601 | min | 0.75 |
| tc90 | ASTM D6601 | min | 1.30 |

PHYSICAL PROPERTIES

Press cure 10 min at 170°C (338°F); Post cure 4 hours at 230°C (446°F)

| Properties | Test Method | Unit | Value |
|---------------------|-------------|-----------|-------------|
| 100% Modulus | ASTM D412 | MPa (psi) | 10 (1450) |
| Tensile strength | ASTM D412 | MPa (psi) | 20.0 (2901) |
| Elongation at break | ASTM D412 | % | 210 |
| Shore A Hardness | ASTM D2240 | Points | 76 |

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

| Properties | Test Method | Unit | Value |
|-----------------|--------------------|------|-------|
| Compression set | ASTM D395 Method B | % | 17 |

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® KR520P

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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