

FKM 85.501-01

Sealing Technology Technical Data Sheet

General compound description

| | |
|---|--|
| Material name, short description | FKM |
| Material name, based on technical standards | Fluorine elastomer |
| Compound Code | FKM 85.501-01 |
| Material description / intended use | Fluoroelastomer with high heat resistance and broad chemical resistance. |
| Crosslinking agent | peroxid |
| Color | black |
| Remarks | Perfomed for high pressure applications in low temperature. |

Mechanical properties

| | |
|-----------------------|---|
| Density | 1.84 g/cm ³ ± 0.03 ASTM D 297 |
| Hardness | 85 Shore A ± 5 ASTM D 2240 |
| Tensile strength | 15.6 MPa ASTM D 412 |
| Elongation at rupture | 120 % ASTM D 412 |
| Compression set | 14.3 % ASTM D 395-B2 22 h, 150 °C, 25 % deformation |
| | 19.2 % ASTM D 395-B2 22 h, 200 °C, 25 % deformation |
| | 28.7 % ASTM D 395-B2 24 h, 150 °C, 50 % deformation |

Chemical state change

| | |
|-------------------|--|
| Air aging | |
| Value change 1 | Hardness: +5 Points Tensile strength: -10 % Elongation at rapture: -15 % Test norm: ASTM D 573 Test parameter: 94 h, 200 °C |
| Storage in medium | |
| Value change 1 | Medium: IRM 903 Oil (ASTM 3) Hardness: -1.5 Points Tensile strength: -10 % Elongation at rapture: +5 % Volume: +2 % Test norm: ASTM D 471 Test parameter: 70 h, 150 °C |
| Value change 2 | Medium: ASTM Fuel C Hardness: -3 Points Volume: +3.2 % Test norm: ASTM D 471 Test parameter: 70 h, 23 °C |
| Value change 3 | Medium: ASTM FAM B Hardness: -12 Points Tensile strength: -21.4 % Elongation at rapture: -17.6 % Volume: +16.3 % Test norm: ASTM D 471 Test parameter: 168 h, 23 °C |

Thermal properties

| | |
|------------------------------|-----------------------|
| Min. operating temperature | -40 °C |
| Max. operating temperature | 200 °C |
| TR 10 value | -41 °C ASTM D 1329 |
| Glass transition temperature | -41 °C VDA 675 116 |

| | |
|----------------|--|
| Value change 4 | Medium: ATF 220 Hardness: -2.5 Points Tensile strength: -3.3 % Elongation at rapture: +3.8 % Volume: +2 % Test norm: ASTM D 471 Test parameter: 168 h, 120 °C |
| Value change 5 | Medium: ATF SHC Hardness: -4 Points Tensile strength: -10.2 % Elongation at rapture: +0.5 % Volume: +2.8 % Test norm: ASTM D 471 Test parameter: 168 h, 120 °C |