ChemTex® FF80CR Overview

Technical Datasheet

ChemTex® FF80CR is a next-generation FFKM (perfluoroelastomer) compound, representing the highest tier of performance among elastomeric sealing materials. Built on a fully fluorinated polymer backbone, ChemTex® FF80CR combines many of the chemical inertness characteristics of PTFE with the elastic recovery and sealing capability of rubber. This unique material architecture allows ChemTex® to withstand extreme chemical exposure while maintaining tight, reliable seals in demanding environments.

Immersion Conditions*	Volume Change
168 hours at 85°C, ethylenediamine	4.6%
168 hours at 60°C, 70% nitric acid	3.2%
168 hours at 100°C, acetic acid	5.6%
168 hours at 100°C, ammonium hydroxide	3.7%

Immersion testing performed at an independent ISO 17025 accredited laboratory; test report available on request

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UTEX
INNOVATING SEALING PERFORMANCE

Key Features

- Excellent resistance to a broad range of chemicals including oils, acids, alkalis, and solvents
- Optimal mechanical properties for long-term sealing performance
- Specifically formulated for the most challenging chemical environments, including primary amines and strong acids at elevated temperatures
- Application temperature range: -15°C (5°F) to 260°C (500°F)

Applications

- Mechanical Seals
- Valves
- Chemical handling, pumps
- Diesel Engines

Products

- Standard and non-standard O-rings
- Custom-shaped seals
- T-seals, seal stacks

Additional Information

- ChemTex® FF80CR is available in a variety of sizes and forms, from <2mm up to >1m diameters
- Capable of being bonded to many difficult-to-bond substrates including nickel alloys, stainless steel, etc.
- Suitable for use in the harshest chemical environments, including primary amines and strong acids

Feature	Test Method	Typical Values
Material Type	ASTM D1418	Perfluoroelastomer, FFKM
Tensile Strength	ASTM D412	23.4 MPa (3,388psi)
Elongation at Break	ASTM D412	148%
Hardness	ASTM D2240	80 Shore A
Stress at 100% Strain	ASTM D412	12.5 MPa (1,827 psi)
Color	-	Black, White
Compression set 70hrs at 200°C (392°F)	ASTM D395 Method B	6.8%
Compression set 168hrs at 200°C (392°F)	ASTM D395 Method B	11%
Compression set 70hrs at 232°C (450°F)	ASTM D395 Method B	12%
Coefficient of Linear Thermal Expansion	ASTM E831	261 µm/m-°C

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