



**SEAL TECHNOLOGY**  
PREMIUM-QUALITY SINCE 1867



## **Extreme media. Absolutely safe** BF 750 – the seal for extraordinary applications

Developers, designers and users often have difficulties when a technical installation or machine comes into contact with particularly aggressive media. Using more sensitive components, for example elastomer seals, this often leads to damages. The consequences are shorter maintenance intervals, unplanned machine stoppages and, in the worst possible case, also leaks which in turn can lead to the stoppage of the production.

The FPM / FKM material BF 750 from COG is designed for use in aggressive media and offers excellent resistance to chemicals. Here the compound BF 750 has undergone extensive testing in particularly problematic and aggressive media. The test results are consistently impressive and this FPM / FKM material can therefore be used for a number of different industrial applications.

- Universally usable all-rounder
- Excellent resistance to chemicals
- In some areas comparable with FFPM / FFKM
- Excellent properties in use with biogenic and conventional fuels
- Very good resistance to vapour
- Good solvent resistance
- Low compression set
- Good mechanical properties
- Wide temperature operating range from -15 °C to +200 °C
- Very attractive price, especially in comparison with FFPM / FFKM



# BF 750 – safety even in demanding environments



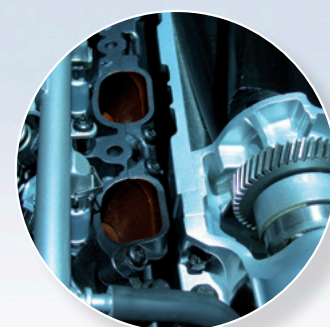
The material BF 750 is a polymer with a high fluorine content based on fluoro rubber (FPM / FKM). This material has been designed by the COG compounding department especially for the high demands made on O-ring seals when they come into contact with aggressive media and it has been tested in an independent laboratory. The result is entirely impressive: even in the media tested as an extreme example such as nitric acid and sodium hydroxide or biogenic media / fuels, the material changes are slight and are within all tolerance levels – therefore providing the ideal requirements for safe sealing results.

## Test results

Following storage for 72 h / 23 °C in biogenic media							
Medium		B100	B5	E85	Vegetable Oil	Ethanol	Fuel C
Change in hardness	Pkt.	0	0	-1	0	-1	-1
Change in tensile strength	%	0	0	0	0	0	0
Change in strain	%	0	0	0	0	0	0
Change in weight	%	0,0	0,0	+0,3	0,0	+0,2	+0,1
Change in volume	%	0,0	0,0	+0,7	0,0	+0,5	+0,1

Following storage for 72 h / 70 °C in biogenic media							
Medium		B100	B5	E85	Vegetable Oil	Ethanol	Fuel C
Change in hardness	Pkt.	-1	-2	-7	0	-5	-5
Change in tensile strength	%	-11	-10	-20	-5	-19	-17
Change in strain	%	-6	-8	-9	-3	-10	-9
Change in weight	%	+0,5	+0,4	+3,1	+0,1	+2,2	+1,9
Change in volume	%	+0,8	+0,9	+7,3	+0,1	+5,5	+5,3

Change after ageing in	Hardness	Tear resistance	Elongation	Volume
Water (H <sub>2</sub> O) at 70 h/95 °C	-3 points	-10 %	+1 %	+0,3 %
Nitric acid (HNO <sub>3</sub> - 60 %) at 70 h/80 °C	-10 points	-37 %	+5 %	+7,0 %
Sodium hydroxide (NaOH - 20 %) at 70 h/80 °C	-2 points	-16,1 %	-3,4 %	-0,2 %







## Wide range of uses

A sealing material with many different uses makes things a lot easier in practice. The material BF 750 can be used wherever the sealing materials come into contact with aggressive media, e.g. acids or alkalis, biogenic media and conventional fuels. These include pipes, lines, valves, filling station fuel dispensers and their peripheral equipment, pumps, motors, couplings and vacuum pumps as well as equipment in the paint industry, oil industry (e. g. drill pipe sealing), boilers, autoclaves, tube seals etc.

BF 750 covers many different areas of application which range from the chemical industry and mechanical engineering on to process engineering – in short all areas of application where, as well as high thermal resistance, high chemical resistance is also required.

The outstanding resistance to chemicals, steam, and solvents, combined with a low compression set and high mechanical properties make this sealing material unique in the market segment for the operating temperature range from -15 °C to +200 °C. BF 750 – a universal material that truly deserves the all-rounder title.

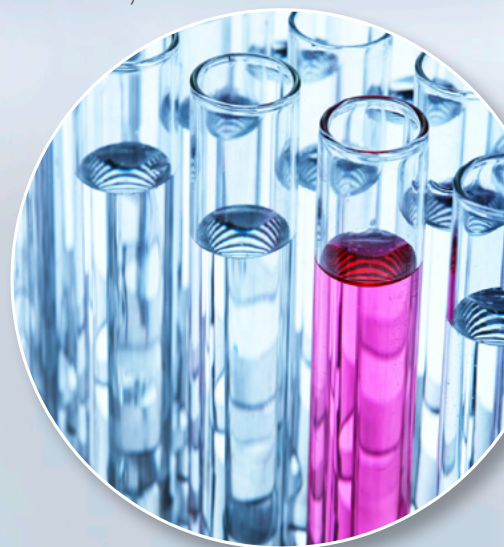
### DATA SHEET

COG-No.:	BF 750
Basis elastomer:	Fluorinated rubber (FKM)
Colour:	black
Temperature range:	from -15 °C to +200 °C

#### Rubber technology data

Properties	Unit	Value	Testing methods
Hardness:	Shore A	75 ± 5	DIN ISO 7619-1
	°IRHD, CM	75 +3/-8	DIN ISO 48
Tear resistance:	MPa	> 23	DIN ISO 53504
Ultimate elongation:	%	> 172	DIN ISO 53504
Compression set (24 h/200 °C)	%	< 15	DIN ISO 815

*The indicated values do not replace the official data sheet. They are not binding and exclude all liability for damage of any kind.*



# For the benefit of our clients

C. Otto Gehrckens – shortly named COG – has offered its clients uncompromising premium quality for over 150 years. The combination of tradition and innovation at COG is the key to our success. This is demonstrated daily in our customer relations. Our clients are among the best in their respective industries. And they expect the best from us.

Over 250 employees are committed at COG to our clients' success, ranging from engineers in the application technology department to our colleagues in the world's largest O-Ring warehouse with their rapid response capabilities. COG is an independent manufacturer based in Pinneberg near Hamburg and is managed by the fifth generation of the founding family. We are a leading supplier of precision O-Rings and elastomer seals thanks to our comprehensive stock, flexible production facilities and commitment to customer service.

Our clients define the aims of everything we do. New ideas and products are developed quickly and in a market and goal-oriented manner in close cooperation with the application technology and sales department. The result is often a major market benefit to our clients. Please refer to [www.cog.de](http://www.cog.de) or contact us directly for more information. Let's discuss your aims.



C. Otto Gehrckens GmbH & Co. KG  
Seal Technology  
Gehrstücken 9 · 25421 Pinneberg · Germany  
☎ +49 4101 50 02-0 · 📠 +49 4101 50 02-83  
[www.cog.de](http://www.cog.de) · [info@cog.de](mailto:info@cog.de)