SEAL TECHNOLOGY
PREMIUM-QUALITY SINCE 1867



High performance has a new name:
COG Resist®

In nearly all sectors and applications, the requirements are continuously becoming more complex: not only must seals be resistant to temperature; they must also be able to withstand a wide variety of chemicals. They must be resistant to vapour – as well as to solvents. Or they need to be able to resist changes in media, plus high pressure. In these situations, a high quality universal seal is a must. And COG Resist® is the ideal solution: the FFKM materials developed by COG offer **temperature resistance of up to +325 °C,** and can withstand changing media, a wide range of chemicals, hot water and high pressure. In short: **they are extremely resistant, and so fully live up to their name.**

THE ADVANTAGES OF COG RESIST®:

- The greatest chemical resistance of all the elastic seal materials
- High temperature stability of up to +325 °C, depending on type used
- Low compression set
- Excellent behaviour in vacuums
- Flexible in its application
- A suitable material for the widest variety of requirements
- Very short production times
- Ring diameters of up to 2000 mm possible

Note: COG Resist®can only be sold outside Germany.

The most demanding requirements. Top performance.



COG Resist® RS 75 AL

High temperature? Hot water vapour or acidic environment? The right answer to such complex requirements is: COG Resist® RS 75 AL. This FFKM material comes up trumps thanks to its excellent mechanical properties, plus high levels of resistance to chemicals and acids. Whether for use in vacuums or with vapour, with amines or at high temperatures, COG Resist® RS 75 AL is an absolute all-rounder. Due to its low permeability the compound is also less prone to swelling and enables an extended in-service performance in valves, pumps and further applications.

- Heat resistant to +325 °C
- Excellent chemical resistance
- Good mechanical properties
- High purity
- Highly resistant to vapour
- Universally applicable
- Very good vacuum behaviour

MATERIAL DATA

COG material:	COG Resist® RS 75 AL
Base elastomer:	Perfluorelastomer (FFKM)
Colour:	black
Operating temperature (air):	from -15 °C to +325 °C

Rubber technology values

Properties	Unit	Value	Test method
Hardness:	Shore A	75 ± 5	ASTM D 2240
	°IRHD, CM	75 ± 5	ASTM D 1415
Tensile strength:	MPa	> 14	ASTM D 412
Elongation:	%	> 200	ASTM D 412
Compression set: (72 h / 200 °C)	%	< 15	ASTM D 395

COG Resist® RS 80 AL

This high performance FFKM material demonstrates excellent resistance to acids, amines and media containing chlorine and solvents. It is heat resistant up to +260 °C and has excellent mechanical properties. What's more, its range of applications is correspondingly broad: whether in pressure tanks or diesel engines, couplings or valves – COG Resist® RS 80 AL demonstrates the necessary resistances.

- Heat resistant to +260 °C
- Excellent chemical resistance
- Outstanding mechanical properties
- Can be used universally in the chemical industry and also in refineries.

MATERIAL DATA

COG material:	COG Resist® RS 80 AL
Base elastomer:	Perfluorelastomer (FFKM)
Colour:	black
Operating temperature (air):	from -15 °C to +260 °C

Rubber technology values

Properties	Unit	Value	Test method
Hardness:	Shore A	80 ± 5	ASTM D 2240
	°IRHD, CM	80 ± 5	ASTM D 1415
Tensile strength:	MPa	> 14	ASTM D 412
Elongation:	%	> 150	ASTM D 412
Compression set: (72 h / 200 °C)	%	< 20	ASTM D 395

Use a high tech FFKM compound. Prevent explosive decompression.

THE VERY HIGHEST RESISTANCE TO EXTREME CHANGES IN PRESSURE

Even the name doesn't augur well: explosive decompression is a phenomenon that manufacturers and operators in various sectors dread. It affects seals that need to work with gaseous media, even when there are extreme changes in pressure. Because especially when there are sharp drops in pressure, conventional elastomer seals quickly display signs of damage. For example, blistering on the seal surface is a typical indicator of explosive decompression. What is required is a specially designed elastomer that distinguishes itself by its excellent physical properties. Only such a material is able to resist the demands made of it over the longer term. So, in short: high tech is what you need!

COG Resist® RS 92 AED

The COG Resist® RS 92 AL material is high tech: it was especially developed and tested for use in environments where explosive decompression can occur. Wherever seal materials are exposed to high pressure and aggressive media, COG Resist® RS 92 AED provides the security you need. Because the compound combines extraordinary chemical resistance with excellent thermal resistance. These high-end properties, along with its low compression set, make it the number one choice for deep seavalves, pumps and compressor construction. In short, a material that satisfies the very highest demands.

- Excellent resistance to explosive decompression
- Tested to NORSOK standard M-710 and NACE TM 0297
- Operating temperature range from -15 °C to +260 °C
- Excellent chemical and thermal resistance
- Extraordinary resistance to methanol, hot water, steam and oils
- High chemical resistance
- Very good compression set

MATERIAL DATA

COG material:	COG Resist® RS 92 AED
Base elastomer:	Perfluorelastomer (FFKM)
Colour:	black
Operating temperature (air):	from -15 °C to +260 °C
Approvals/Certifications:	Tested to NORSOK standard M-710, NACE TM 0297

Rubber technology values

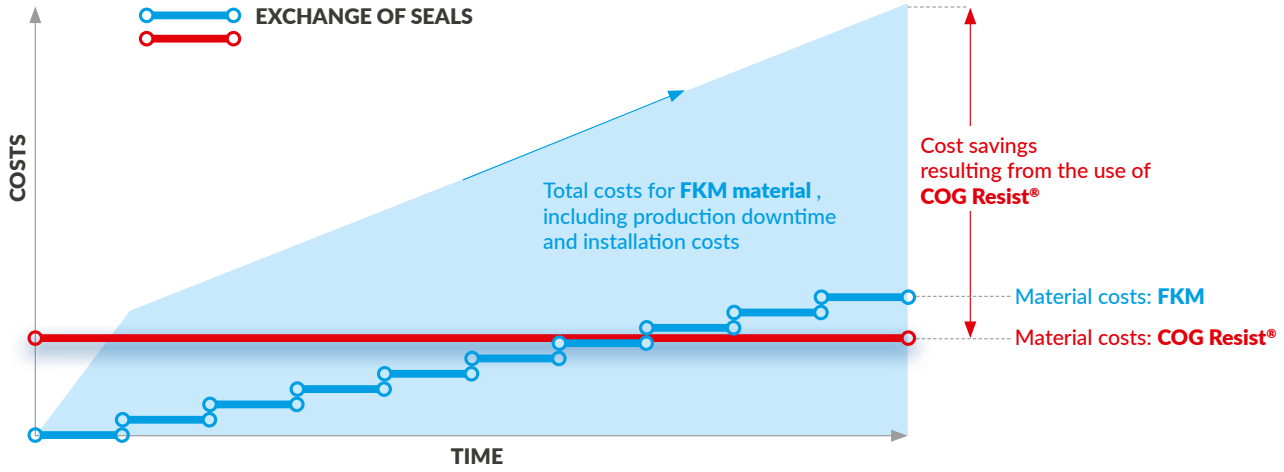
Properties	Unit	Value	Test method
Hardness:	Shore A	92 ± 5	ASTM D 2240
	°IRHD, CM	92 ± 5	ASTM D 1415
Tensile strength:	MPa	> 20	ASTM D 412
Elongation:	%	> 120	ASTM D 412
Compression set: (24 h / 200 °C)	%	< 15	ASTM D 395

NORSOK:

The NORSOK M-710 standard was developed by the Norwegian oil and gas industry, and is a procedure for testing the resistance of seal materials to explosive decompression.

From performance to service life: first class

Choosing a suitable high quality elastomer seal pays off doubly: thanks to its longer service life, the intervals between maintenance are longer. But the opposite also applies: the use of seals that are initially seemingly economical can result in enormous costs. COG Resist® offers quality that pays for itself: its period of deployment is remarkable, and the high performance material used requires considerably less maintenance.



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 · info@cog.de