

Extrusion Resistant

Low-Temperature Viton

Steam Resistant

H<sub>2</sub>S Resistant

NORSOK M-710 Certified

Extreme High Temperature

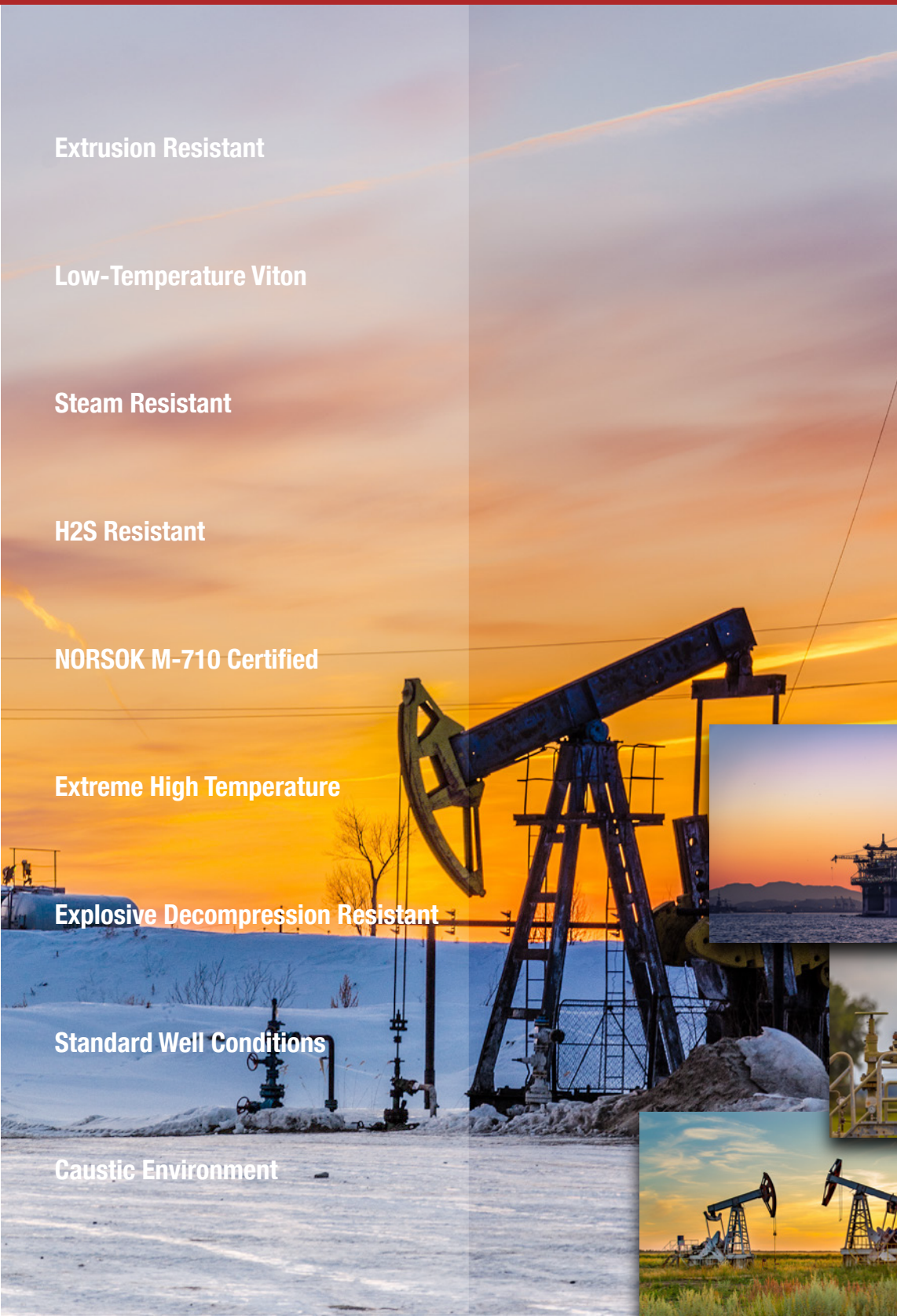
Explosive Decompression Resistant

Standard Well Conditions

Caustic Environment

# Oil Field Proven O-Ring Materials

**Compounds specifically formulated for exploration and production applications.**



## Our Mission - To support the oilfield service sector - both as a reliable seal manufacturer and industry advocate.

With uncertainty and volatility in the oil and gas industry here to stay, E&P capital expenditures will remain ambivalent. As such, supply chain forecasting will continue to be challenging for oil field service companies. That's why reliability and speed have become primary principles at KC Seals. Our focus is to get you your sealing products when you need them without interruption. This is something we take very seriously and is why we continuously innovate our lean manufacturing practices and industry 4.0 systems. Helping you have one less thing to worry about when sourcing one of the many components that go into your tool assembly.



### Less Red Tape

We're easy to deal with; it's as simple as that. We offer same-day response time, rapid deliveries, flexible procedures, lean manufacturing, and no line-price minimums.



### Advanced Thermoplastics and Elastomers

Our thermoplastics and elastomers are specifically formulated for the harsh environments typically seen in exploration and production applications. This includes compounds that offer resistance to temperature, extrusion, RGD, and superheated steam.



### Quality Assurance

With every order, our clients can expect a detailed quality report. This includes dimensional information calibrated by our Zeiss O-Machine and Keyence CMM, both of which utilize optical and contact measurement technology in a comprehensive analysis. KC Seals is ISO 9001 certified.



### Most Affordable Tooling Fees

Setup fees can be a major deterrent when deciding to move forward with a project. KC Seals makes it easier by making all our compression molds in-house, saving you time and money.



### Custom Molded and Machined Sealing Solutions

Machining rubber and plastics, as well as compression molding can be complicated if you lack the know-how. With over 30 years of experience in manufacturing rubber and plastic sealing parts, KC Seals is the ideal resource for complex polymeric sealing profiles.



## OIL FIELD PROVEN O-RING MATERIALS

The upstream sector of the oil and gas industry poses unique challenges for sealing companies. It's not unusual to see environments where temperatures can reach 260°C (500°F), pressures can exceed 10,000 psi, and the applications can be extremely caustic. These examples are just a few of the many inquiries we can receive at KC Seals. Our O-Ring materials are oil field-proven and are specifically formulated for the harsh environments typically seen in exploration and production applications. This includes compounds that offer resistance to temperature, extrusion, H<sub>2</sub>S, rapid gas decompression, and superheated steam. We also offer compounds that are both NORSOK M710 and API 6A certified.

### Applications

- Liner Hangers
- Blowout Preventers
- High-Pressure Valves
- Pumps
- Fishing Tools
- Production Packers
- Gas Lift Valves
- PCP Systems
- Rod Lift Systems
- Drilling Motors
- MWD Tools

### Elastomers

- Extrusion Resistant
- H<sub>2</sub>S Resistant
- NORSOK M-710 Approved
- API 6A Approved
- Temperature Resistant
- Chemical Resistant
- Explosive Decompression Resistant
- Steam Resistance



# MATERIALS

Material	KC Seals Material Code	Hardness Shore A	Description	Temperature range
Standard Grade Viton®	V75 V90	75 and 90 Duro	FKM type A commercial grade compound. Off the shelf, low cost, and highly accessible Viton® compound.	-20°C to +205°C -4°F to 400°F
NORSOK M-710 and NACE TM0297 CERTIFICATED approved FKM.	V911	90 Duro	Specifically designed for sealing performance in the oil and gas sector. The V911 compound has passed testing for NORSOK M710 and NACE TM0297, which is critical for rubber sealing materials in applications such as subsea use, control systems and valves. These tests provide standards for rapid gas decompression (RGD) and sour gas (H2S) aging on elastomers.	-30°C to +205°C -22°F to 400°F
Low Temp Viton	LTV LTV-90	80 and 90 Duro	KC Seals LTV FKM compound is formulated for services requiring low temperature, rapid gas decompression (RGD) and offers excellent compression set resistance. Features include- RGD resistant per ISO 23936-2, H2S resistant per ISO 23936-2 (up to 10%), and superior compression set and extrusion resistance.	-50°C to +205°C -50°F to 400°F
CV75™ Viton Extreme™	CV75	75 Duro	CV75 is our brand name for Viton™ Extreme™ ETP-600S. CV75 combines the thermal resistance of Viton™ fluoroelastomers with unique chemical and environmental resistance beyond the capacity of conventional fluoroelastomers. Key benefits of using CV75 include: Excellent resistance to acid, hydrocarbon, and low molecular weight esters, ketones, and aldehydes. Inherent resistance to base attack and low volume change in highly caustic solutions, amines, and hot water. Low temperature flexibility.	-20°C to +225°C -4°F to 437°F
Aflas®	AFL	80 Duro	Aflas® offers excellent steam resistance, resistance to acids and bases, amines, Ozone and H2S. Its unique features, especially its steam resistance, help to enhance performance and durability in oil recovery equipment.	-4 to 232°C 25°F to 450°F
Standard Grade HNBR	HSN H90	80 and 90 Duro	A general applications HNBR compound. HSN provides good chemical resistance to crude oil, lubricating agents and oil additives with superior resistance to carbon dioxide, water, drilling mud and amine corrosion inhibitors. HSN is off the shelf, low cost, and highly accessible HNBR compound.	-40°C to 160°C -40°F to 325°F
NORSOK M-710 and API 6A approved HNBR 90	H9120	90 Duro	Specifically designed for sealing performance in the oil and gas sector. The H9120 compound has passed testing for NORSOK M710, API 6A and NACE TM0297, which is critical for rubber sealing materials in applications such as subsea use, wellhead, control systems and valves. These tests provide standards for rapid gas decompression (RGD) and sour gas (H2S) aging on elastomers.	-40°C to 160°C -40°F to 325°F

# MATERIALS

Material	KC Seals Material Code	Hardness Shore A	Description	Temperature range
Standard Grade NBR (BUNA)	N70 N90	70 and 90 Duro	Low-cost general-purpose compound. Even with its low cost, Nitrile still offers good resistance to compression set and tear/abrasion. Nitrile is resistant to many petroleum oils/greases, hydraulic fluids, alcohol, ambient water, silicone greases, Diester base lubricants and ethylene-glycol based fluids.	-35°C to +120°C -30°F to +250°F
Perfluoroelastomer 495	SZ495	75 Duro	A general purpose FFKM compound, Simriz® 495 performs well in a wide variety of harsh chemicals as well as under overheated steam and hot water conditions. Simriz 495 offers outstanding performance in strong acids and oxidizers making Simriz® 495 the perfect match for nearly every application in the chemical process industry.	-20°C to 230°C -4°F to 450°F
Perfluoroelastomer 498	SZ498	80 Duro	Simriz® 498 is the ultimate FFKM material. Its unique patented material structure provides an outstanding long-term performance in nearly every environment. No matter if it is extreme temperatures up to 325°C or harsh chemicals or even overheated steam and hot water. Simriz® 498 is the best match for every oil and gas application.	-6°C to 325°C 21°F to 617°F
Perfluoroelastomer 134	SZ134	90 Duro	NORSOK M710 certified, SZ134 combines RGD and broad chemical resistance as well as a high thermal stability. Furthermore, SZ134 can withstand extremely high pressure as well as steam sterilization.	-15°C to 230°C 5°F to 450°F

For over 30 years we've been supplying sealing solutions to the upstream sector conveniently and collaboratively. Contact us today to see why so many of our clients enjoy working with us.

## Located in:

5505 51st Ave SE  
Calgary, Alberta  
T2C 3X4

Email: [info@kcseals.ca](mailto:info@kcseals.ca)

Phone: (403) 531-2690

Website: [www.kcseals.ca](http://www.kcseals.ca)



## Multiple ways to engage with us

- Chat with us on-line
- Email
- Book a meeting on-line
- Give us a call
- Instant on-line quotations
- Text message