

O-RING SOLUTIONS FOR ENGINE COOLANT SYSTEMS



Freudenberg Sealing Technologies produces a wide variety of superior quality O-rings in different materials for many applications.

O-rings are used in a range of applications such as wet cylinder liners, injector sleeves, oil suction, oil pressure tubes, sensors, thermostat housings, and exhaust gas recirculation valves. In critical applications like turbochargers, exhaust gas recirculation, wet cylinder liners, and injector sleeves, there are coolants and oils which challenge O-ring integrity. With each particular application a different type of O-ring is required and Freudenberg Sealing Technologies will deliver a successful solution for every application.

Freudenberg Sealing Technologies O-rings meet rigorous standards and high customer demands, including:

- Resistance to aggressive oils and coolants
- Reliable performance in temperature extremes and under pressure
- Easy installation
- Twist-safe seating in the sealing gland
- long lived and wear-free

Freudenberg Sealing Technologies offers a selection of O-ring materials and compounds:

- EPDM
- Conventional FKM
- Premium FKM

VALUES FOR THE CUSTOMER

Freudenberg Sealing Technologies is a global partner for O-ring solutions with world-wide availability of premium materials and proprietary compounds. We have a multiplicity of OEM material approvals. Our O-ring products are dependable and never fail to deliver:

- A concerted sealing solution between compound, O-ring design, and seal coating
- A wide selection of custom coatings
- Available in standard and customizable shapes to prevent twisting in the gland.
- Larger sealing surface through special designs
- Width stability against a multitude of coolants and engine oils

High-performance FKM eliminates the need for an EPDM O-ring





FEATURES AND BENEFITS

TOTAL COOLANT RESISTANCE

60 EPDM 280/ 70 EPDM 281/70 EPDM 291

- Lead-free
- Resistance against any coolant medias
- Media resistance up to 180C°

STANDARD COOLANT AND OIL RESISTANCE

75 FKM 606 Peroxide-Cured FKM Material

A peroxide-cured FKM material for a wide range of applications such as turbocharger, exhaust gas recirculation, wet cylinder liner, and injector sleeves:

- Lead-free
- Resistance to standard coolants (inorganic, e.g., Glysantin G48)
- Resistance against engine oils
- Media resistance up to 125 C°
- pH range: 3 ~ 9,5
- Already approved for most OEMs

STANDARD COOLANT AND OIL RESISTANCE

75 FKM 235568 Premium FKM Material

A premium FKM material designed for cylinder liner applications:

- Lead-free
- Coolant resistance against all types:
 - Standard (inorganic)
 - OAT
 - NOAT
- Coolant resistance (continuously) up to 160 C°
- Highest resistance against engine oils
- Less maintenance effort due to increased O-ring product life
- pH Range: 1,5 to ~ 9,5

EXTREME COOLANT RESISTANCE—FEPM

200° C Continuous Coolant Resistance

A successful track record of performance in diesel-electric locomotive engines:

- Specially-treated FEPM resists coolant at 200° C for 1000 hours
- Specially-treated FEPM resists dry heat at 220° C for 1000 hours

AVAILABLE COATINGS

Possible coatings are available with lubricant varnish:

- Color coating with SCB 021: a water-based resin, identification by colored coating, facilitates automatic assembly, enables low insertion forces, motor oil resistant
- Transparent SCB088: a water-based polyurethane resin, low COF (static and dynamic), prevents adhesion of parts, facilitates feeding, prevents “stick-slip”, AdBlue and motor oil resistant

The information contained herein is believed to be reliable, but no representation, guarantees or warranties of any kind are made to its accuracy or suitability for any purpose. The information presented herein is based on laboratory testing and does not necessarily indicate end product performance. Full scale testing and end product performance are the responsibility of the user.

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