

IMPERIAL STANDARD RANGE (ISR) SIMMERRING® OIL SEALS



The **Freudenberg Sealing Technologies** ISR Simmerring oil seal is a premium quality seal typically used in numerous original equipment applications such as gearboxes, axles, transmissions, and engines.

VALUES FOR THE CUSTOMER

- Outstanding sealing performance with robust and excellent sealing behavior even in harsh environment
- Superior reliability and life time due to low friction and low power loss
- Excellent wear resistance
- Simple installation
- Excellent medium compatibility with mineral and synthetic lubricants
- Covers a wide range of applications
- Standardized according ISO 6194

DESIGN FEATURES

Material properties

72 NBR 902—features flexibility in cold temperatures with a low acrylonitrile content, elastic properties, and tough wear resistance

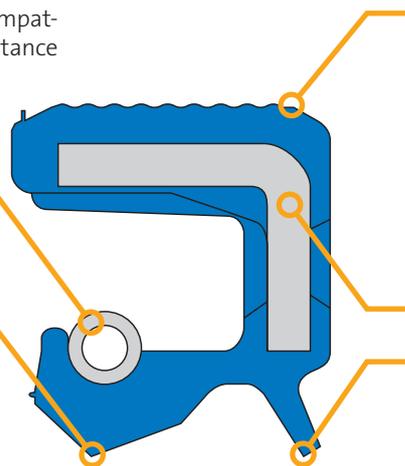
75 FKM 585—an FKM terpolymer with excellent compatibility to modern lubricants and excellent wear resistance with a temperature range of -25°C to 160°C

Garter Spring

- Low load design parameters
- Provides long life load stabilization

Sealing Lip

- Trimmed lip provides excellent sealing performance
- Extremely low friction generates less heat
- Pressure stable up to 0.5 bar/50 kPa
- Circumferential speed up to 40 m/s
- Excellent with bi-directional shaft rotation



Rubber O. D.

- Excellent static sealing behavior independent of housing materials and surface roughness
- Low assembly forces due to grooved O.D.
- Tight fit for pressure up to 1.0 bar with proper installation and housing surface preparation

Metal Insert

Dust Lip

- Excellent protection against dust, mud, and water



FEATURES AND BENEFITS

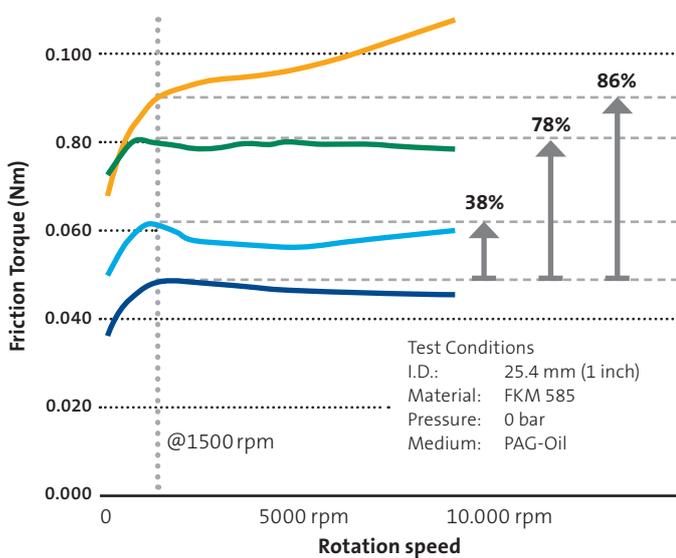
Friction Torque and Power Loss (mineral oil and PAG oil)

- Up to 90% lower friction torque
- Up to 80% less specific heat generation within the sealing contact zone
- In average, up to 50% less seal wear than competitor seals

ISR Simmerring oil seals deliver:

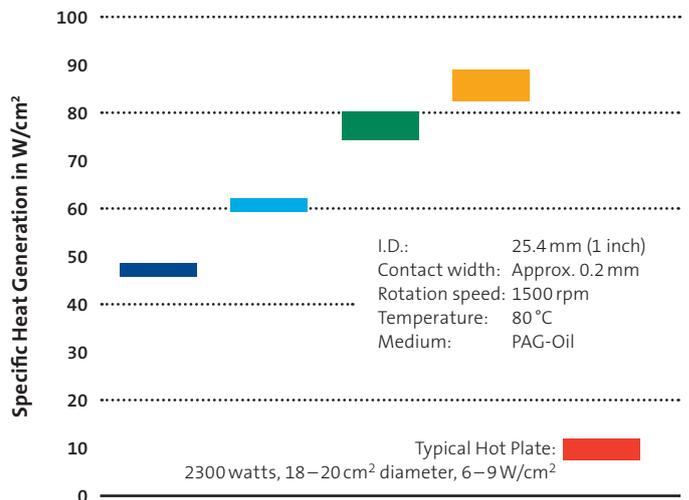
- Better wear resistance and chemical compatibility due to the high quality elastomer
- Minimized effect from moderate pressure on seal life due to improved lip design
- Consistent performance proven out to 20.000 hours in appropriate sealing environment

Friction torque



■ ISR Simmerring oil seals ■ Competitor 1, Seal Design 1 ■ Competitor 1, Seal Design 2 ■ Competitor 2, Seal Design 1

Heat Generation



ISR SIMMERRING OIL SEALS DELIVER LONGER SEAL LIFE AND HIGHER RELIABILITY RESULTING IN LOWER COSTS FOR OUR CUSTOMERS!

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