



ETHYLENE-PROPYLENE (EPDM)

Ethylene-propylene compounds are prepared from ethylene and propylene (EPM) and usually a third monomer (EPDM). These compounds are used frequently to seal in brake systems, and for sealing hot water and steam. Ethylene propylene compounds have good resistance to mild acids, detergents, alkalis, silicone oils and greases, ketones, and alcohols. They are not recommended for applications with petroleum oils, mineral oil, di-ester lubricants, or fuel exposure.

Ethylene Propylene has gained wide seal industry acceptance for its excellent ozone and chemical resistance properties and is compatible with many polar fluids that adversely affect other elastomers.

EPDM compounds are typically developed with a sulphur or peroxide cure system. Peroxide-cured compounds are suitable for higher temperature exposure and typically have improved compression set performance.

Temperature Range (dry heat)

low

high

-60 °F
-51 °C

300 °F
149 °C

Application Advantages

- » excellent weather resistance
- » good low temperature flexibility
- » excellent chemical resistance
- » good heat resistance

Application Disadvantages

- » poor petroleum oil and solvent resistance

Modifications

- » sulphur-cured and peroxide-cured compounds
- » third comonomer EPDM, copolymer ethylene and propylene EPM

Primary Uses

O-rings, rubber seals and custom molded rubber components for:

- » Water system seals, faucets, etc.
- » Brake systems
- » Ozone exposure applications
- » Automotive cooling systems
- » General Industrial Use

Specialized Applications

- » glycol-based brake system seals
- » FDA approved applications
- » NBR NSF standard 61 for potable water applications
- » NBR WRc, KTW water applications