

Chapter B5

EPDM



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Individual chapters of the Kalsi Seals Handbook are periodically updated. To determine if a newer revision of this chapter exists, please visit www.kalsi.com/seal-handbook.htm.

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1. Seal material profile: EPDM

ASTM designation: EPDM

Common names: EPDM

Ethylene-Propylene

EPM

(Poly Ethylene Propylene Diene)

Trade names: Epcar (Goodrich)

Nordel (Dupont)

Vistalon (Exxon Chemical)

General material description

EPDM is available (on a special order basis) as a rotary seal material because of its resistance to steam, hot water, and phosphate ester based fire resistant hydraulic fluids. The typically quoted operating temperature range is -50 to 300°F (-45 to 149°C).

EPDM exhibits good overall chemical resistance (excepting hydrocarbons), and good to excellent abrasion resistance, compression set resistance, tear resistance, and flexing resistance. EPDM also exhibits useful resistance to silicone oil and grease, dilute acids and alkalis, alcohol, ketones, and ozone.

Known media limitations:

Avoid petroleum based fluids, diester lubricants, and water/oil emulsions.

EPDM rotary shaft seal materials (special order)

Material dash no.	Material name	Material hardness, Shore A Durometer
-12	EPDM	80 ±5
-13	EPDM	90 ±5