M SEALS **EP-B85**

General Purpose 85a Peroxide Cured EPDM Rubber

MATERIAL DATA SHEET (Version 6.0 – 05.2022)



Description

M Seals material ECP-B85 is a general-purpose peroxide cured Ethylene-Propylene-Rubber, commonly referred to as EP or EPDM. This material is useful for applications involving hot water and/or steam and some commonly used fire-resistant fluids. Peroxide cured EPDM offers improved higher temperature, chemical and ageing resistance in comparison to sulphur cured variants.

EPDM is commonly used in applications involving brake fluid, but we highly recommend thoroughly testing products in their specific application to determine performance, efficiency and safety for each end-use product before utilising this material in a braking system.

All EPDM rubbers have very poor resistance to fats and oils; therefore, we do not recommend its use in applications utilising these types of fluid/s, this is due to the excessive volume swelling and softening of the material that will occur, leading to product failure. Lubricating EPDM rubber in hydrocarbon-based oils and greases should always be avoided.

Physical Properties

Property	Test method	Unit	Typical value
Colour			Black
Density	ISO 1183-1	g/cm^3	1.21
Hardness @ 23°C	ISO 7619-1	Shore A	85 (+/-5)
100% Modulus	DIN 53504	N/mm^2	9.3
Tensile Strength	DIN 53504	N/mm^2	12.7
Elongation at break	DIN 53504	%	120.3
Tear resistance	ISO 34-1 A	N/mm	34.4
Compression set (24 Hours @ 70°C, 25%)	ISO 815-1	%	10.8
Compression set (24 Hours @ 100°C, 25%)	ISO 815-1	%	9.2
Minimum service temperature		°C	-50
Maximum service temperature		°C	+130

Main Characteristics

- Excellent resistance to hot water & steam
- Good physical properties
- Good resistance to acids, alcohols, bases and brake fluid
- Good Ozone resistance
- Useful temperature range

Typical Products

- U-Seals
- Seals exposed to Ozone environment
- Wiper seals
- Static Seals & O-Rings
- Bespoke parts

Tel: 0044 (0) 114 243 2777 . Fax: 0044 (0) 114 242 2300 . Mail: sales.esd@m-seals.co.uk . Web: www.m-seals.com