

# M SEALS BFPM-ED84

Explosive Decompression Resistant Fluorocarbon Rubber



## MATERIAL DATA SHEET (Version 6.0 – 05.2022)



Norsok M710



High Temperature



Low Temperature



Chemical resistance

### Description

M Seals material BFPM-ED84 is a Norsok M-710 certified explosive decompression (ED/RGD) resistant Fluorocarbon rubber (FPM/FKM) which is commonly used in high pressure Oil & Gas applications. This material provides resistance to rapid gas decompression, excellent chemical resistance and a useful temperature range making it an excellent choice for seals and components working in arduous environments.

BFPM-ED84 is suitable for use with most mineral and crude oils, greases, fats, petroleum fluids, aliphatic and aromatic hydrocarbons. It should **not** be used for applications involving fluids containing Amines, Ketones, Glycols and hot water/steam.

### Physical Properties

Property	Test method	Unit	Typical value
Colour			Black
Density	ISO 1183	g/cm <sup>3</sup>	1.86
Hardness	ISO 868	Shore A	85 (+/-5)
Tensile Strength	DIN 53504	MPa	≥10
Elongation at break	DIN 53504	%	≥200
Tear strength	ISO 34-1	kN/m	≥20
Rebound resilience	DIN 53512	%	11
Compression set (24 Hours @ 70°C)	ISO 815-1	%	≤30
Compression set (24 Hours @ 100°C)	ISO 815-1	%	≤35
Compression set (24 Hours @ 175°C)	ISO 815-1	%	≤45
Minimum service temperature		°C	-20
Maximum service temperature		°C	+220

### Main Characteristics

- Norsok M710 Annex B certified – 0000 Rating
- Excellent ED (Explosive Decompression) resistance
- Excellent chemical resistance
- Useful temperature range
- No tooling charges

### Typical products

- Hydraulic seals for high pressure gas use
- T-Seals
- Energised U-Rings
- Static Seals & O-Rings
- Bespoke parts

### Norsok M710 Rev 2 Annex B Test Conditions

Test Gas: 90/10 mol% CH<sub>4</sub>/CO<sub>2</sub>

Test Temperature: 100°C

Test Pressure: 150 bar (15 MPa) decompressed at 20 bar/min over 10 cycles

Seal Details: 4 Specimens of BS 1806-312 (15.24mm Internal Diameter – 5.33mm Cross Section)

### Result

The four test seals passed, each with a perfect Norsok rating of 0000

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