

M SEALS BFPM-RGDB85

RGD Resistant FPM/FKM Fluorocarbon Rubber



MATERIAL DATA SHEET (Version 6.0 – 05.2022)



Norsok M710
Annex B



High Temperature



Low Temperature



Chemical resistance



ISO 10423
API6A FF/HH

Description

M Seals material BFPM-RGDB85 is a Norsok M710 (Annex B) certified RGD resistant Fluorocarbon rubber (FPM/FKM) which is commonly used in high pressure Oil & Gas applications. BFPM-RGDB85 has also been tested against the requirements of ISO 10423 Appendix F.1.13.5.2 (API 6A) in respect of sour fluid (FF/HH) resistance at +135°C. 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-RGDB85 is suitable for use with most mineral oils, crude oils, greases, fats, petroleum fluids, hydrocarbons and biodegradable oils.

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 ³	2.0
Hardness	ISO 868	Shore A	86 (+/-3)
Tensile Strength	DIN 53504	MPa	12.5
Elongation at break	DIN 53504	%	240
Tear strength	ISO 34-1	kN/m	28.2
Rebound resilience	DIN 53512	%	8
Compression set (24 Hours @ 175°C, 25%)	ISO 815-1	%	19.9
All values are subject to +/-25% tolerance			
Minimum service temperature		°C	-30
Maximum service temperature		°C	+210

Main Characteristics

- Norsok M710 Annex B certified – 1000 Rating
- ISO 10423 / API6A FF/HH certified at +135°C
- Excellent RGD (Rapid Gas Decompression) resistance
- Excellent chemical resistance
- Useful temperature range

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% CH₄/CO₂

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 with a Norsok rating of **1000**

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