Seal Maker®
The system for flexible seal production

Material Data Sheet F800-B85 RGD

FPM-F800-RGD-black (peroxide cross linked)

General

F800-B85-RGD is a black fluorocarbone rubber, with excellent physical characteristics and chemical resistance to the most common hydraulic fluids, sour oils/gases (H2S) and crude oils.
F800-B85-RGD has been optimized to withstand the risk of rapid gas decompression (RGD) or explosive decompression (ED) which is an essential demand in the oil and gas industry.

Physical properties

Density:	DIN 53479	g/cm³	2,26	±0,03
Hardness at 23°C:	DIN 53505	Shore A	88	±5
100% Modulus:	DIN 53504	N/mm²	4,7	*
Tensile strength:	DIN 53504	N/mm²	5,9	*
Elongation at break:	DIN 53504	%	193,0	*
Tear resistance:	DIN 53515	kN/m	34,1	*
Rebound resiliance:	DIN 53512	%	8,0	*
Compression set, 24h, 70°C, 25%:	DIN 53517	%	10,7	*
Compression set, 24h, 100°C, 25%:	DIN 53517	%	10,7	*
Compression set, 22h, 175°C, 25%:	DIN 53517	%	11,7	*

* mentioned values are subject to a tolerance of +/- 25%

Temperature range: **-30°C to 210°C**

Chemical resistance

Resistant to:	HFD-S and HFD-R Fluid, Mineral Oils, Vegetable Oils, Silicone Oils, Biodegradable Oils, Hydrocarbons, Alcohols, Diesel, Gasoline, Fuels, Ozone, Oxygen, Air up to 200°C
Not Resistant to:	Steam

Main application

Static and dynamic seals (standard and special), wipers, O-rings, flange seals, rotary seals, rubber energizers (preload elements). Applications where high temperature and/or chemical resistance is required.

Rapid Gas Decompression (RGD) validation:

The compound has passed the RGD test at MERL UK with the highest possible rating of 0000.
Test conditions, according Norsok M-710, were 10 decompressions cycles with 90% Methane + 10% Carbon dioxide gas at 100° C and 150 bar test pressure. A certificate is available on request.

Analysis and Evaluation

Values mentioned above are based on several tests performed during development and production of the material. Tests have been performed on standard test pieces specified within the relevant standard within the laboratory. Tests performed on any other pieces which are not related to the corresponding standard or made out of any (semi)finished part or any other part deviating in production process, dimension or age of the material from above may result in different values. The data represent our present empirical values and do not disengage the processor or user from his obligation to examine the usage of the material for his specific application.
We reserve the right to update this data sheet from time to time if new empirical values are available. Errors and omissions excepted. V2.0

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