

# M SEALS HTPU-OR96

High Temperature RGD &  
Hydrolysis Resistant Polyurethane



## MATERIAL DATA SHEET (Version 6.0 – 05.2022)



High Temperature



Norsok M710



Hydrolysis Resistant

### Description

HTPU-OR96 is an outstanding H-PU Polyurethane material that has been modified to provide resistance to High Temperature, Hydrolysis and Rapid Gas Decompression (RGD).

The material has a high thermal ageing resistance in comparison to standard grades of Polyurethane, which makes it ideal for use where increased application temperatures are an issue for other grades of Polyurethane. Its Norsok M-710 approval for RGD resistance makes this a suitable choice for high pressure gas operations in the Oil & Gas industry.

HTPU-OR96 can be used in Water up to +90°C, Sea Water, HFA and HFB fluids, Mineral, Vegetable and Silicone oils. It should not be used in Steam, Solvents, Concentrated Alcohols or Acids and HFD fluids. Its use in Water Glycol (HFC) fluids is only limited by temperature, please contact our technical department for further information.

### Physical Properties

Property	Test method	Unit	Typical Value
Colour			Orange
Density	ISO 1183-1	g/cm <sup>3</sup>	1.09
Hardness	ISO 7619-1	Shore A	96(+/-5)
Tensile Strength	DIN 53504	N/mm <sup>2</sup>	≥45
Tensile Modulus 100%	DIN 53504	N/mm <sup>2</sup>	≥10
Elongation at break	DIN 53504	%	≥350
Tear Strength	ISO 34-1 B	N/mm	≥110
Compression set (25% Strain 24 Hours @ 70°C)	ISO 815-1	%	≤25
Compression set (25% Strain 24 Hours @ 100°C)	ISO 815-1	%	≤30
Compression set (25% Strain 24 Hours @ 125°C)	ISO 815-1	%	≤65
Minimum service temperature		°C	-30
Maximum service temperature		°C	+135

Norsok M-710 RGD resistance in 10% CO <sub>2</sub> + 90% CH <sub>4</sub> @ 15MPa - 100°C		
Material	Summary Rating	Conclusion
HTPU-OR96	0 0 0 0	PASS
Conditions: 10.5% compression and 65% groove fill.		

### Main Characteristics

- Norsok M-710 Annex B compliant for RGD resistance
- Excellent high temperature properties for polyurethane
- Excellent abrasion resistance
- Excellent hydrolysis resistance.

### Typical Products

- Spring Energised seals
- Energised U-Seals
- Static Seals & O-Rings
- Scraper/Wiper seals

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