

M SEALS SDPU-GD57

Lubricated Hard Grade

Hydrolysis Resistant Polyurethane



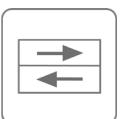
MATERIAL DATA SHEET (Version 6.0 – 05.2022)



Wear Resistance



Hydrolysis Resistance



Low Friction

Description

SDPU-GD57 is our internally lubricated hard grade Hydrolysis-Resistant Polyurethane (H-PU), that has been adjusted to a hardness of 57 shore D to provide it with excellent extrusion and wear resistance while providing a reduction of the stick-slip effect sometimes found in hydraulic applications.

This material is an excellent choice for O-Ring energised piston composite sealing elements, O-Ring energised U-Seals and Back-up Rings working under high pressures. The excellent low friction, wear resistance and superior sealing effect provided by this material make it a good replacement for dynamic O-Ring energised PTFE composite seals.

SDPU-GD57 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 limited by temperature, please contact our technical department for further information.

Physical Properties

Property	Test method	Unit	Typical value
Colour			Grey
Density	ISO 1183-1	g/cm ³	1.17
Hardness @ 23°C	ISO 7619-1	Shore D	57
100% Modulus	DIN 53504	N/mm ²	≥ 13
Tensile Strength	DIN 53504	N/mm ²	≥ 45
Elongation at break	DIN 53504	%	≥ 310
Tear strength	ISO 34-1	kN/m	≥ 120
Compression set (24 Hours @ 70°C, 25%)	ISO 815-1	%	≤ 25
Compression set (24 Hours @ 100°C, 25%)	ISO 815-1	%	≤ 30
Minimum service temperature			-30°C
Maximum service temperature			+125°C

Main Characteristics

- Excellent hydrolysis resistance
- Good wear and abrasion resistance
- Excellent extrusion resistance
- Internally lubricated for low friction use

Typical Products

- Composite seals
- Wiper seals
- O-Ring energised U-Seals
- Piston sealing elements

Typical applications

Due to its outstanding wear, abrasion and low friction properties, this material is an excellent choice for composite seals requiring improved sealing performance over the standard PTFE types where chemical compatibility allows and for applications requiring a seal to work in high pressure operation.

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

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