

M SEALS DPU-RD57

Hard Grade Hydrolysis Resistant Polyurethane



MATERIAL DATA SHEET (Version 6.0 – 05.2022)



Wear Resistance



Hydrolysis Resistance

Description

DPU-RD57 is one of our hard grade Hydrolysis-Resistant Polyurethanes (H-PU) that has been adjusted to a hardness of 57 shore D which provides it with excellent extrusion and wear resistance.

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. Its excellent wear and abrasion resistance also make it a good choice for Wiper/Scraper seals working in arduous environments.

DPU-RD57 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. It's 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			Dark Red
Density	ISO 1183-1	g/cm ³	1.20
Hardness @ 23°C	DIN 53505	Shore D	57
100% Modulus	DIN 53504	N/mm ²	≥ 23
Tensile Strength	DIN 53504	N/mm ²	≥ 45
Elongation at break	DIN 53504	%	≥ 300
Tear strength	ISO 34-1	kN/m	≥ 100
Compression set (70 Hours @ 70°C, 25%)	ISO 815-1	%	≤ 25
Compression set (24 Hours @ 100°C, 20%)	ISO 815-1	%	≤ 30
Minimum service temperature			-20°C
Maximum service temperature			+110°C

Main Characteristics

- Excellent hydrolysis resistance
- Good wear and abrasion resistance
- Excellent fluid resistance
- FDA compliant

Typical Products

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

Typical applications

Due to its outstanding wear and abrasion resistant properties, this material is an excellent choice for O-Ring energised composite seals requiring better sealing performance than standard PTFE types and for applications requiring Wiper/Scraper seals to minimise system contamination while working in dirty environments.

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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