

M SEALS HPU-G88

Hydrolysis Resistant Soft Polyurethane (H-PU)



MATERIAL DATA SHEET (Version 6.0 – 05.2022)



Elastic Properties



Hydrolysis Resistance

Description

HPU-G88 is our soft grade Hydrolysis-Resistant Polyurethane (H-PU). This material has excellent elastic behaviour and is a very flexible polyurethane. Due to the excellent flexibility of this material it is much easier to install and is useful for applications that may require a high degree of compression and/or deflection.

HPU-G88 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			Green
Density	ISO 1183-1	g/cm ³	1.17
Hardness @ 23°C	ISO 7619-1	Shore A	90
Hardness @ +100°C	ISO 7619-1	Shore A	85
100% Modulus	DIN 53504	N/mm ²	≥ 8
Tensile Strength	DIN 53504	N/mm ²	≥ 90
Elongation at break	DIN 53504	%	≥ 300
Tear strength	ISO 34-1	kN/m	≥ 90
Compression set (24 Hours @ 70°C, 25%)	ISO 815-1	%	≤ 25
Compression set (24 Hours @ 100°C, 25%)	ISO 815-1	%	≤ 45
Minimum service temperature			-30°C
Maximum service temperature			+115°C

Main Characteristics

- Excellent hydrolysis resistance
- Good elastic behaviour
- Excellent flexibility
- Easy installation

Typical Products

- U-Seals
- Wiper seals
- Rotary seals
- Piston seals

Typical applications

Due to its outstanding flexibility, this material is an excellent choice to replace standard Nitrile elastomers in hydraulic or pneumatic applications where its extra abrasion resistance may be required. Due to the excellent hydrolysis resistance of HPU-G88, it can be used in the most common hydraulic fluids, oil in water emulsions and water power applications. The material can operate up to 200 bar working pressure as a standalone product and up to 400 bar when seals are incorporated with anti-extrusion / back-up ring.

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