

# M SEALS HPU-R95

## Hydrolysis Resistant Polyurethane



MATERIAL DATA SHEET (Version 6.0 – 04.2022)



Wear Resistance



Hydrolysis Resistance



FDA Compliant

### Description

HPU-R95 is our standard Hydrolysis-Resistant Polyurethane (H-PU). While this material was created to prevent material degradation in applications involving fluids such as oil in water emulsions or pure water, which are commonly found in both mining and forge press industries, it is recommended as a sealing material in most hydraulic applications.

HPU-R95 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 only limited by temperature, please contact our technical department for further information.

### Physical Properties

Property	Test method	Unit	Typical value
Colour			Red
Density	ISO 1183-1	g/cm <sup>3</sup>	1.16
Hardness @ 23°C	ISO 7619-1	Shore A	95
Hardness @ +100°C	ISO 7619-1	Shore A	93
100% Modulus	DIN 53504	N/mm <sup>2</sup>	≥ 10
Tensile Strength	DIN 53504	N/mm <sup>2</sup>	≥ 50
Elongation at break	DIN 53504	%	≥ 350
Tear strength	ISO 34-1	kN/m	≥ 100
Compression set (24 Hours @ 70°C, 25%)	ISO 815-1	%	≤ 25
Compression set (24 Hours @ 100°C, 25%)	ISO 815-1	%	≤ 35
Minimum service temperature			-30°C
Maximum service temperature			+125°C

### Main Characteristics

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

### Typical Products

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

### Typical applications

Due to its outstanding hydrolysis resistance HPU-R95 can be used in the most common hydraulic fluids, oil in water emulsions and water power applications, while also being suitable for food contact use. HPU-R95 can operate up to 400 bar working pressure as a standalone product and up to 700 bar when seals are incorporated with anti-extrusion / back-up ring.

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

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