

M SEALS SLPU-M95

Low Friction Internally Lubricated Polyurethane

MATERIAL DATA SHEET (Version 6.0 – 05.2022)



Low Friction



Hydrolysis Resistance

Description

SLPU-M95 is a hydrolysis-resistant polyurethane which has been modified for low friction use via the addition of an MoS₂ (Molybdenum disulphide or Moly) internal lubricant. This material is recommended for applications that require low friction operation, stick-slip prevention, a reduction in seal wear and/or in applications where the fluid has poor lubrication properties.

Physical Properties

Property	Test method	Unit	Typical value
Colour			Maroon
Density	ISO 1183-1	g/cm ³	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 ²	≥ 10
Tensile Strength	DIN 53504	N/mm ²	≥ 45
Elongation at break	DIN 53504	%	≥ 320
Tear strength	ISO 34-1	kN/m	≥ 110
Compression set (24 Hours @ 70°C, 25%)	ISO 815-1	%	≤ 25
Compression set (24 Hours @ 100°C, 25%)	ISO 815-1	%	≤ 35

Main Characteristics

- Excellent low friction behaviour
- Excellent hydrolysis resistance
- Reduced seal wear
- Can help prevent stick-slip in critical applications
- Internally lubricated

Typical Products

- O-Ring energised U-Seals
- Rod & Piston composite seals
- Pneumatic seals
- Wiper seals
- Rotary seals

Typical Applications

SLPU-M95 has been developed to replace standard polyurethane materials working in dynamic applications that require low-friction operation or those suffering from stick-slip issues. It is commonly used to produce O-Ring energised U-Seals, Wiper seals, Rotary seals and can normally be utilised up to 400 bar pressure in standard hydraulic applications and up to 700 bar pressure with the use of a separate back-up ring.

Due to its outstanding hydrolysis resistance SLPU-M95 can be used in the most common hydraulic fluids, oil in water emulsions and water power applications.

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