

MATERIAL DATA SHEET

HPU

H-PU is a MDI based thermoplastic and casted polyurethane system (TPU + CPU) which has been specially modified and developed for sealing applications. H-PU has been optimized in regards to hydrolysis stability, mechanical properties and chemical resistance. It has high tensile strength, very high abrasion resistance, low hysteresis, good flexibility at low temperatures (-20 °C) and a low compression-set.

H-PU is recommended to use in high temp. natural and sea-water applications, for the use in flame retardant hydraulic fluids (HFA- HFB fluids), as well as in biological degradable fluids (vegetable oils and synthetic esters).

H-PU is approved by KTW and corresponds to FDA standards.

MECHANICAL | ELECTRICAL | THERMAL PROPERTIES

Colour:			red
Hardness at 20°:	DIN 53505	Shore A	95 +/-3
Density:	DIN ISO 1183-1	g/cm ³	1.21
100% Modulus:	DIN 53504	N/mm ²	> 12
300% Modulus:	DIN 53504	N/mm ²	> 33
Tensile strength:	DIN 53504	N/mm ²	> 45
Elongation at break:	DIN 53504	%	> 315
Rebound resilience:	DIN 53512	%	> 28
Tear strength:	DIN ISO 34-1	N/mm ²	> 100
Abrasion:	DIN 53516	mm ³	< 16
Compression set:*	DIN ISO 815-1	%	< 22
Compression set:**	DIN 53517	%	< 29
Compression set:***	DIN 53517	%	< 32
Compression set:****	DIN 53517	%	< /
Min. service temperature:		°C	- 20
Max. service temperature (short term):		°C	+ 115 (+130)
Tg Glass Transition Temp.:		°C	/

* Compression set @ 70°C, 70 hours, 10% deflexion

** Compression set @ 70°C, 24 hours, 20% deflexion

*** Compression set @ 100°C, 24 hours, 20% deflexion

**** Compression set @ -40°C, 70 hours, 10% deflexion

REMARK

All test methods and values mentioned above are corresponding to ASTM | DIN | ISO standards and have been tested on standardized plates in the laboratory. All tests are made under laboratory conditions.