



## MATERIAL DATA SHEET

# XSH-Pur

### GENERAL INFORMATION

XSH-Pur is a hard grade casted polyurethane system (CPU), made of a selection of top-grade chemical components which have been scientifically blended for the use in the sealing industry.

XSH-Pur has been optimized regarding its hydrolysis stability, high temp. stability, mechanical properties and friction and wear by adding solid lubricants (MoS<sub>2</sub>).

Besides an outstanding stability in oil hydraulic applications XSH-Pur is highly recommended to be used in high temp. natural and/or sea-water applications, in sour oils and gases, for the use in flame retardant hydraulic fluids (HFA- HFB fluids in mining cylinders and hydr. presses), as well as in biological degradable fluids (vegetable oils and synthetic esters).

Due to its excellent extrusion resistance, allowing larger sealing gaps at higher application temperatures, improved sliding properties and reduced stick-slip effect it is mainly used for composite seals.

### MECHANICAL | ELECTRICAL | THERMAL PROPERTIES

Colour:			dark grey
Hardness at 20°:	DIN 53505	Shore A	/
Hardness at 20°:	DIN 53505	Shore D	56 +/-2
Density:	DIN ISO 1183-1	g/cm <sup>3</sup>	1.22
100% Modulus:	DIN 53504	N/mm <sup>2</sup>	> 17
300% Modulus:	DIN 53504	N/mm <sup>2</sup>	> 33
Tensile strength:	DIN 53504	N/mm <sup>2</sup>	> 45
Elongation at break:	DIN 53504	%	> 370
Rebound resilience:	DIN 53512	%	> /
Tear strength:	DIN ISO 34-1	N/mm <sup>2</sup>	> 170
Abrasion:	DIN 53516	mm <sup>3</sup>	< 25
Compression set:*	DIN ISO 815-1 %		< /
Compression set:**	DIN 53517	%	< 29
Compression set:***	DIN 53517	%	< 33
Compression set:****	DIN 53517	%	< /
Min. service temperature:		°C	- 20
Max. service temperature (short term):		°C	+ 140 (+ 155)
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 stated 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.

This information does not except our customers to test our products for its suitability for the intended application.

Utilization, processing and application of our products are out of our control and therefore our customers responsibility, also in terms of any protective rights of any third party.