

## AF1008a Data Sheet U580-D57G

### Polyurethane U580-D57G + MoS<sub>2</sub> – Grey

#### General

U580-D57G is a MoS<sub>2</sub> filled hydrolysis-resistant (H-PU) cased Polyurethane based on MDI polycarbonate polyol and certain additives. The hardness is adjusted at 7 Shore D which results in excellent extrusion resistance. Used as a dynamic sealing element in composite seals, easier installing and better sealing performance in combination with less friction and reduced stick-slip effect will be the main advantage of this material.

#### Physical properties

Density	DIN 53479	g/cm <sup>3</sup>	1.15
Hardness at 23°C	DIN 53505	Shore D	57 +/-3
100% Modulus	DIN 53504	N/mm <sup>2</sup>	>13
300% Modulus	DIN 53504	N/mm <sup>2</sup>	>25
Tensile strength	DIN 53504	N/mm <sup>2</sup>	>45
Elongation at break	DIN 53504	%	>310
Tear strength	DIN 53515	kN/m	>120
Compression set 70°C*	DIN 53517	%	<25
Compression set 70°C*	DIN 53517	%	<30
Min. service temperature		°C	-30
Max. service temperature		°C	125

\*Compression set: 25% deflexion, 24 hours.

#### Chemical resistance

Water up to 90°	R	Mineral oils	R
Sea water	R	Vegetable oils	R
Steam	U	Silicone oils	R
HFA, HFB fluids	R	Concentrated alcohols and solvents	U
Concentrated acids and lyes	U	Ozone, oxygen (cold)	R
HFD fluids	U		

Key to chemical resistance: R = Resistant U = Unsuitable

#### Main application

Seals and composite seals (with elastomer preload element), wipers, back-up or retainer rings up to 600 bar pressure in standard hydraulics, machinery with wider metal tolerances, applications with poor lubrication or rough and worn sliding surfaces. Due to its outstanding hydrolysis resistance it can be used in the most common hydraulic fluids, oil in water emulsions but also water power applications, applications in the mining industry and presses.

#### Analysis and evaluation

The properties relate to fundamental values for polyurethane products. Values mentioned above are corresponding to ASTM or DIN standard and have been tested on standardized plates in the laboratory. All immersion tests are made under laboratory conditions.

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All information is based on typical test results performed under specific conditions and limited sample size. This does not represent a legally binding guarantee of certain properties or the suitability for specific applications.

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