

## AF1010 Data Sheet U510-G88

### Polyurethane U510-G88 – Light Green

#### General

U510-G88 is a hydrolysis-resistance (H-PU) casted polyurethane based on MDI, polycarbonate polyol and certain additives. Due to the adjustment at 90 Shore A it is very flexible and easier to install in tight housing situations and is also used when a 'softer' material is needed to have higher compression (preload) of the sealing material.

#### Physical properties

Density	DIN 53479	g/cm <sup>3</sup>	1.17
Hardness at 23°C	DIN 53505	Shore A	90 +/-2
Hardness at +100°C	DIN 53505	Shore A	85 +/-2
100% Modulus	DIN 53504	N/mm <sup>2</sup>	>8
100% Modulus	DIN 53504	N/mm <sup>2</sup>	>30
Tensile strength	DIN 53504	N/mm <sup>2</sup>	>45
Elongation at break	DIN 53504	%	>300
Tear strength	DIN 53515	kN/m	>90
Compression set: 70°C*	DIN 53517	%	<25
Compression set: 100°C*	DIN 53517	%	<45
Min. service temperature		°C	-30
Max. service temperature		°C	115

\*Compression set: 25% deflection, 24 hour.

#### Chemical resistance

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

Key to chemical resistance: R = Resistant U = Unsuitable

#### Main application

Static and dynamic applications, mostly used for U-seals, wipers and packings up to 200 bar pressure in standard hydraulics or pneumatics. U510-G88 can be used as a substitute for N107-B85 or other elastomers with 85 Shore A where the chemical resistance of the elastomer may not be sufficient. 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.

#### Analysis and evaluation

The mentioned properties are only valid for test pieces of the corresponding ISO, DIN and ASTM standards. They cannot be directly related to seals, gaskets and other sealing products and should only be used as a general guide. Contact with improper fluids might influence the application properties.

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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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