evolast[®] N896 (FFKM)

<u>M</u> WILHELMSEN ^/s



Sealing Solutions

evolast® N896 perfl uoroelastomer parts are black products specifi cally designed to withstand a wide operational temperature range without compromising chemical resistance.

evolast® N896 is an excellent choice for use in aggressive chemical environments when thermal resistance is also required, exhibiting outstanding high tempera-ture stability and low compression-set over a broad temperature service range, going from -15°C to +300°C, withstanding peaks up to +330°C.

evolast® N896 is recommended for extremely severe applications where difficult and costly maintenance strongly asks for reduction of process downtimes.

Our evolast® N896 is available for production of O-Rings (with diameters from 1 mm up to 2000 mm) and every shape of customer-designed sealing element.

evolast® N896 parts find application in valves, pumps, mechanical seals, sprayer, couplings, reactors.

Typical Properties

Physical properties	test method	unit	typical value
Colour			black
Specifi c Gravity	ASTM D 1817	g/cm ³	1.98
TR 10	ASTM D 1329	°C	-2
Hardness	ASTM D 2240	Shore A	75

pical value
8
50
2
6

Thermal resistance	test method	unit	typical value
Air ageing (70 hours @ 300 °C)	ASTM D 573		
Delta Hardness		ShA points	2
Delta Elongation at break		%	36
Delta Tensile strength		%	-33
-			
Service temperature range		°C	-15 / +330



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Chemical resistance

The following tables give an indication of what evolast® N896 offers in terms of chemical resistance to aggres-sive chemicals:

Table 1 reports a general overview of performance indiff erent classes of chemicals, whereas some specificc examples are reported in Table 2. However, it isalways recommended to run immersion testing in theactual operating conditions.



Chemical resistance overview

Chemical resistance (ASTM D471)	volume swell	
Inorganic acids	Α	Rating system:
Organic acids	А	A: 0–10% volume swel B:
Alkalis	А	10–30% volume swell C:
Amines (RT)	А	30-50% volume swell
Hot amines (<70 °C)	В	
Water/Steam	А	
Ketones	А	
Esters	А	
Ethers	А	
Aldehydes	А	
Alcohols	А	
Hydrocarbons	А	
Sour gas	А	
Lubricants	A	

Results of lab testing in various fl uids of evolast® N896

Chemical resistance (ASTM D471)	testing conditions (time and temp.)	volume swell (%)	delta hardness (ShA points)
Methyldiethanolamine	168 hours @ 100 °C	6	-3
Water/Glycol (50/50)	168 hours @ 150°C	2	-2
Steam	168 hours @ 200 °C	6	-5
МЕК	720 hours @ 45 °C	6	-4
Mobil Pegasus 1005	504 hours @ 230°C	1	-1
HNO 3 65%	168 hours @ 23 °C	1	3
Acetone	168 hours @ 23 °C	3	0

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