

## Sealing Solutions

evolast<sup>®</sup> B794 perfluoroelastomer parts are white products specifically designed for pharmaceutical and food handling applications, where FDA compliancy is needed together with other regulatory requirements. Seals must be compatible with many different chemicals: Pharmaceutical, Food and Beverage industries frequently use Automated CIP (Cleaning In Place) and SIP (Sterilization In Place) processes due to their resource-saving benefits, uptime, as well as

lower usage of chemicals and the prevention of toxic contamination and the minimisation of recontamination. The latter two are necessary to ensure safe and compliant processing. Matching seal material to an application can therefore extend seal life.

evolast<sup>®</sup> B794 is an excellent choice for use in aggressive environments where acids, bases, steam, polar solvents, organic and inorganic media are used. Together with a broad chemical resistance and an excellent compression set, evolast<sup>®</sup> B794 parts can be used in a temperature range going from **-20°C** to **+230°C**, withstanding peaks up to **+270°C**.

## evolast<sup>®</sup> B794 has the following qualifications and approvals

- FDA 21 CFR 177.2400 \*, CFR 177.2600 \*
- USP Class VI
- 3A-Sanitary Standard \*
- Reg. CE 1935/2004 \*, DM 21/03/1973 \*
- BfR XXI \*

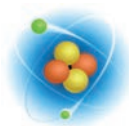
\* (Valid until 30.09.2023)

Our evolast<sup>®</sup> B794 is available for production of O-Rings (with diameters from **1 mm** up to **2000 mm**) and any form of customized sealing elements.

## Applications

Valves  
Pumps  
Mechanical seals  
Sprayer  
Biomedical equipment  
Food equipment  
Fermenters





## Typical Properties

Physical properties	test method	unit	typical value
Color			white
Specific Gravity	ASTM D1817	g/cm <sup>3</sup>	2.41
Hardness	ASTM D2240	Shore A	70
<b>Mechanical properties</b>			
Compression set (70 hours, 200°C)	ASTM D395-B	%	24
Elongation at break	ASTM D412	%	130
Tensile strength	ASTM D412	MPa	13
<b>Thermal properties</b>			
Air ageing (70 hours at +250°C)	ASTM D573		
Delta Hardness		ShA points	-2
Delta Elongation at break		%	+3
Delta Tensile strength		%	+7
<b>Service temperature range</b>		°C	-20 to +270



## Chemical resistance

evolast® FFKM materials combine elastomeric properties with almost universal chemical compatibility. The following table gives an overview of the chemical compatibility of evolast® B794 perfluoroelastomer parts.

Chemical resistance (ASTM D471)	Temperature °C (°F)	Volume swell (%)	Delta hardness (ShA points)
NaOH	72 (162)	5	-4
Anhydrous NH <sub>3</sub>	45 (113)	-2	8
Acetone	23 (73)	4	-2
MIBK	115 (239)	6	-6
Water	150 (302)	2	-2
Methanol	23 (73)	1	-1

Statements and recommendations in this publication are based on our experience and knowledge of typical applications of this product, and shall not constitute a guarantee of performance nor modify or alter our standard warranty applicable to such product.  
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