

novapress® 850

Extreme adaptability.

High fault tolerance.

Maximum sealing performance.



GASKETS

TECHNICAL TEXTILES

EXPANSION JOINTS

INSULATION

NEW MATERIALS

 **Frenzelit**
creating hightech solutions

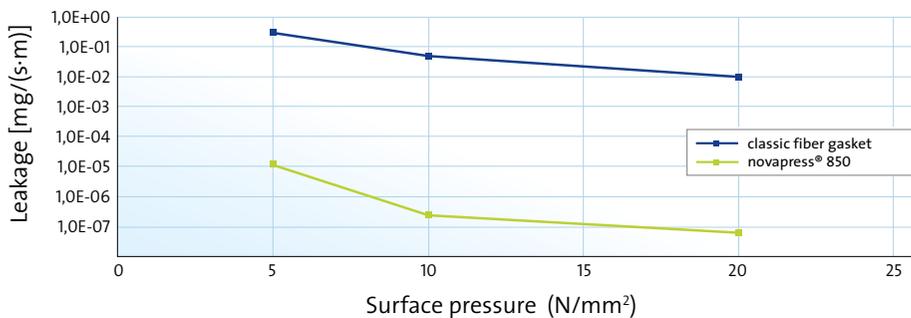
A quantum leap in tightness

Maximum sealing performance is one of the key requirements for gasket materials to ensure superior leakage properties. Until now, conventional fiber gaskets could not compete with elastomer gaskets in terms of tightness. novapress® 850 opens up a new dimension of tightness: novapress® 850 can be used to create reliable gasket systems even with minimal surface pressure thanks to its

unique raw material concept and sophisticated process technology that results in significantly higher adaptability compared to all conventional fiber gaskets.

novapress® 850 represents a quantum leap in tightness.

Comparison of leakage properties novapress® 850 Ring dimension 92 x 49 x 1 mm, 10 bar helium



Quality assurance thanks to a process control system throughout the entire production process.

novapress® products are state-of-the-art gasket sheets manufactured using the calendering process. The blends consist exclusively of high-quality raw materials obtained from renowned suppliers. Every batch is subject to precise specifications and undergoes a rigorous inspection upon receipt to ensure that only perfect raw materials are used for production.

A process control system is used to monitor and control the preparation of the formulations, the blending operation and finally the calendering process itself. This guarantees consistently high quality at all times. Every sheet has a unique batch number and is additionally equipped with our new Gasket Code Technology – for full traceability.

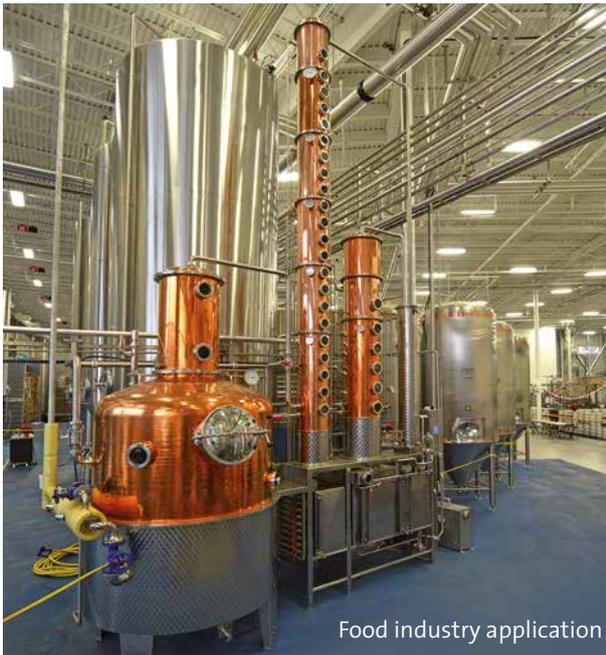
We are here for you to answer your application engineering questions:
gaskets@frenzelit.com



Perfect for a variety of applications

Compliance with food industry regulations according to EC 1935/2004 and FDA

novapress® 850 complies with current regulations for use in contact with food such as EC 1935/2004 and FDA. This makes novapress® 850 suitable for many food industry applications.



Use in drinking water according to the elastomer guideline

novapress® 850 easily satisfies the criteria of the new elastomer guideline for use in drinking water for both cold and hot water applications. novapress® 850 also passes W270 tests with flying colors. This means that novapress® 850 is perfect for use in drinking water applications and can even replace the commonly used rubber-steel gaskets with ease. A special advantage for utility companies: novapress® 850 can be used for gas and drinking water!

DVGW and VP 401 – ideal for gas utilities

novapress® 850 meets the requirements of regulations for use in gas plants – in both industrial and domestic applications (service lines).



Gas meter gasket

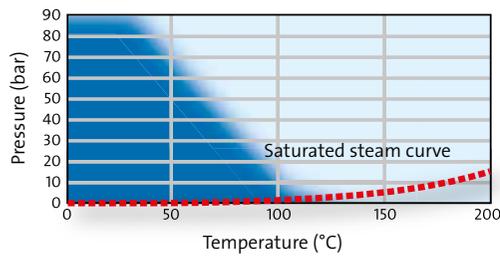


Use in drinking water supply

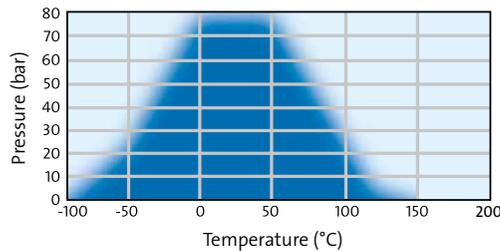
Recommendations for use

Depending on pressure and temperature levels

Water/ water vapor



Other media*



Note about the recommendations for use

The temperature and pressure recommendations in the graphs apply to gaskets 2.0 mm thick that are used with raised face flanges. Higher stresses are possible when thinner gaskets are used! The information provided should therefore be considered cautious estimates rather than specific operational limits.

* Example for the most common other media. Precise data for individual cases can be obtained from the Frenzelit novaDISC program or by contacting our application engineering specialists.

Material data

General information

Approvals and tests: Blow-out VDI 2200, DVGW, EG 1935/2004, FDA, GL, TA Luft, VP 401, W270, WRAS, drinking water according to the elastomer guideline ("KTW")

Identification color: Light brown

Physical properties	Test standard	Unit	Value*
Sample thickness 2.0 mm			
Density	DIN 28 090-2	[g/cm ³]	1.35
Residual stress 175 °C	DIN 52 913	[N/mm ²]	26
Compressibility	ASTM F 36 J	[%]	39
Recovery	ASTM F 36 J	[%]	60
Cold compressibility ϵ_{KSW}	DIN 28 090-2	[%]	20
Cold recovery ϵ_{KRW}	DIN 28 090-2	[%]	12
Hot creep $\epsilon_{VSW/200}$	DIN 28 090-2	[%]	30
Hot recovery $\epsilon_{WRW/200}$	DIN 28 090-2	[%]	1
Specific leakage rate	DIN 3535-6	[mg/(s·m)]	0.001
Tensile strength transverse	DIN 52 910	[N/mm ²]	5
Media resistance	ASTM F 146		
ASTM IRM 903	5 h / 150 °C		
Weight change		[%]	8
Thickness change		[%]	2
ASTM Fuel B	5 h / 23 °C		
Weight change		[%]	12
Thickness change		[%]	9
Leachable chloride content	PV 01605	[ppm]	≤ 150

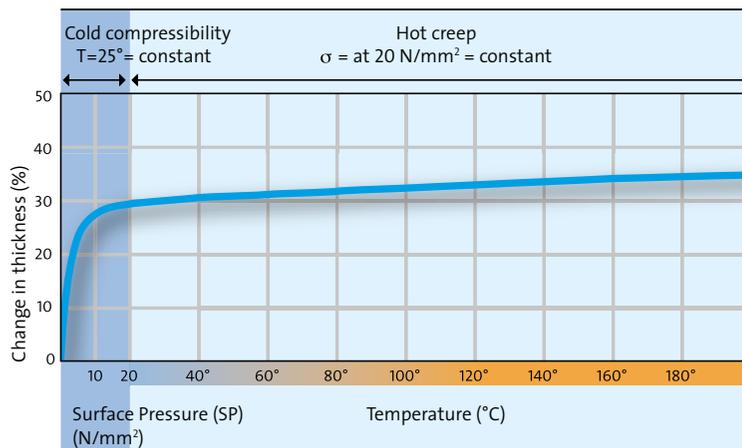
*Modal value (typical value)

Product data (tolerances acc. to DIN 28 091-1)

Dimensions [mm]	1000 x 1500 / 1500 x 1500 / 3000 x 1500
Thicknesses [mm]	0.3 / 0.5 / 0.75 / 1.0 / 1.5 / 2.0 / 3.0

Temp-Test

at 20 MPa – sample thickness: 1.0 mm



Note about the Temp-Test:

The purpose of the Temp-Test is to determine how the gasket deforms under certain conditions. It is a special test developed by Frenzelit that represents what is effectively a "fingerprint" of key gasket properties.

The compression set of the gasket at room temperature is determined in the first part of the test. This curve indicates the adaptability of the gasket during installation.

In the second part of the test, the temperature is increased at a specified speed, while the surface pressure reached in the first part is held at a constant level. Thus the system is not allowed to "relax" as a result of gasket compression. This is excessive – the load on the gasket would be lower in a real gasket connection – but it reveals the true character of the gasket.

Warranty disclaimer

In view of the variety of different installation and operating conditions along with application and process engineering options, the information given in this brochure can only provide approximate guidance and cannot be used as the basis for warranty claims.

Good for people and the environment.

From research and development to our manufacturing operations and use of the product by the customer: quality assurance and a responsible approach to resources and the environment are a firm commitment we observe in everything we do throughout the life cycle of all products.

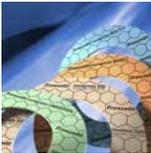
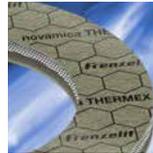
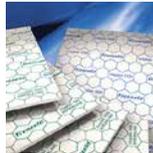
The Frenzelit gasket division has obtained certification that the company complies with the requirements of ISO 9001, ISO 14001 and ISO 50001. This means complete transparency in all areas and therefore provides a high degree of security – for the benefit of our employees, the environment and our customers.

Quality management ISO 9001

Environment management ISO 14001

Energy management ISO 50001

Engineered by Frenzelit: Gasket materials/fiber-reinforced compounds

novapress®	novatec®	novaflo®	novaphit®	novamica®	novaplan®	isoplan®
						
200°C	250°C	260°C	550°C	1000°C	1000°C	1100°C
-100°C	-100°C	-200°C	-200°C	-200°C	-100°C	-100°C
Elastomer-bonded fiber gaskets	Fiber-reinforced graphite gaskets	Modified and filled PTFE gaskets	Expanded graphite with/without stainless steel expanded metal insert	Phlogopite mica with/without stainless steel expanded metal insert	Soft layer/insert for heat shield applications and cylinder head gaskets	High-temperature insulation materials

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 **Frenzelit**
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