novapress® UNIVERSAL
The all-round high-pressure gasket for higher technical requirements.

Material profile

The balanced raw material combination, consisting of high-quality aramide fibres and special functional fillers bonded with **n**itrile **b**utadiene **r**ubber (**NBR**), gives novapress® UNIVERSAL the following special properties:

- **Good tensile strength**
- **Excellent stress relaxation**
- **Very low gas leakage**
- **Very good oil resistance**

Identification colour: green

Application areas

novapress® UNIVERSAL is the ideal choice for use under higher temperature and pressure conditions as well as with uncritical gaseous and liquid media.

- **Pipeline construction**
- **Chemical industry**
- **Plant engineering, machine and equipment manufacturing**
- **Beverage and food industry**

Good for people and the environment

Frenzelit has obtained certification that the company complies with the requirements of both ISO/TS 16949 and ISO 14001. This means complete transparency in all areas and a high degree of security for our customers.

Do you have any questions about your application? The gasket information service will help you:
gaskets@frenzelit.de

GASKETS

TECHNICAL TEXTILES

EXPANSION JOINTS

INSULATION

NEW MATERIALS

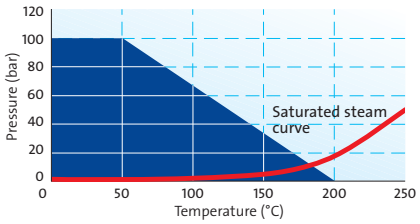
Frenzelit

creating hightech solutions

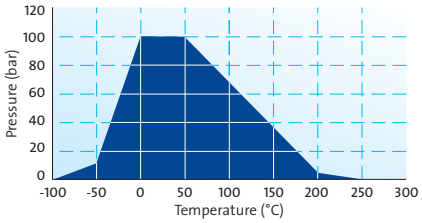
Technical information about novapress® UNIVERSAL

Recommendations for use
according to the pressure and temperature

Water/steam



Other Media*

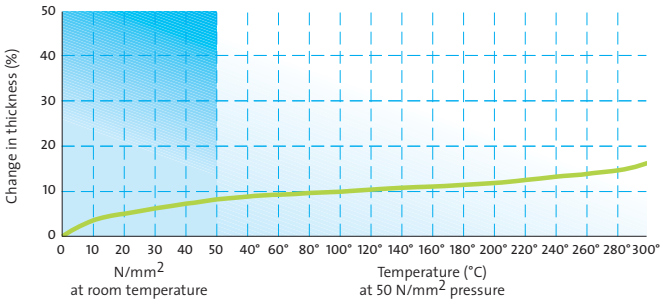


The temperature and pressure recommendations in the graphs apply to gaskets with a thickness of 2.0 mm and smooth flanges. Higher stresses are possible when thinner gaskets are used!

*Example for the most common other media. Exact data for specific individual cases are available in the Frenzelit novaDISC programme or contact our application engineering specialists.

Warranty exclusion
In view of the variety of different installation and operation conditions and application and process engineering options, the information given in this prospectus can only provide approximate guidance. There is as a result no basis for warranty claims.

Deformation under temperature 2.0 mm



Material data

General data

Binders	NBR
Approvals	DVGW, SVGW, HTB, KTW, WRAS, BAM (up to max. 60°C/130 bar), TA Luft
Colour	both sides light-green
Anti-stick coating	both sides PTFE
Sheet size and thickness tolerance	according DIN 28 091-1

Physical properties Gasket thickness 2.0 mm	**Standard**	**Unity**	**Value***
Density	DIN 28 090-2	[g/cm³]	1.80
Tensile strength	DIN 52 910		
longitudinal		[N/mm²]	27
transverse		[N/mm²]	10
Residual stress $\sigma_{dE/16}$	DIN 52 913		
175 °C		[N/mm²]	39
300 °C		[N/mm²]	25
Compressibility	ASTM F 36 J	[%]	6
Recovery	ASTM F 36 J	[%]	60
Cold compressibility ε_{KSW}	DIN 28 090-2	[%]	6
Cold recovery ε_{KRW}	DIN 28 090-2	[%]	3
Hot creep $\varepsilon_{WSW/200}$	DIN 28 090-2	[%]	5.5
Hot recovery $\varepsilon_{WRW/200}$	DIN 28 090-2	[%]	2
Recovery R	DIN 28 090-2	[mm]	0.040
Specific leakage rate	DIN 3535-6	[mg/(s·m)]	≤ 0.100
Specific leakage rate $\lambda_{2,0}$	DIN 28 090-2	[mg/(s·m)]	0.100
Fluid resistance	ASTM F 146		
ASTM IRM 903	5h/150°C		
Weight change		[%]	6
Thickness increase		[%]	2
ASTM Fuel B	5h/23°C		
Weight change		[%]	7
Thickness increase		[%]	6
Leachable Chloride content	FZT PV-001-133	[ppm]	≤ 150

* Mode (typical value)

Product data

- Dimensions in mm: 1000 x 1500
  1500 x 1500
  3000 x 1500
- Thicknesses in mm: 0.3/0.5/0.75/1.0/1.5/2.0/3.0/4.0
- Further dimensions and thicknesses are available on request

FL/13/05.08/03/FL

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Technical Data Sheet

Frenzelit

novapress® UNIVERSAL

Material profile:
- Oil resistant gasket material for many different applications with good stress relaxation and low compression set even above 150°C.

Typical applications:
- Pipes in the general chemical industry, the plant
- apparatus and machine-building industries
- food and beverage industry

Supply data:
- Sheet sizes in mm: 1000x1500 / 1500x1500 / 3000x1500
- Thickness in mm: 0.30 / 0.50 / 0.75 / 1.00 / 1.50 / 2.00 / 3.00 / 4.00
- Special sheet sizes upon request
- Other thicknesses upon request

General data	Binders:	NBR		
	Approvals:	DVGW / SVGW / HTB / KTW / WRAS / TA Luft / BAM (max. 80°C/100bar) / W270 / GL		
	Anti-stick coating:	both sides PTFE		
	Colour:	both sides light-green		
	Sheet size and thickness tolerance:	acc. DIN 28 091-1		
Physical properties (Gasket thickn. 2.00 mm)	**Property**	**Standard**	**Unity**	**Value ***
	Density	DIN 28 090-2	[g/cm³]	1.80
	Tensile strength	DIN 52 910		
	longitudinal		[N/mm²]	27
	transverse		[N/mm²]	10
	Residual stress $\sigma_{dE/16}$	DIN 52 913		
	175°C		[N/mm²]	39
	300°C		[N/mm²]	25
	Compressibility	ASTM F 36 J	[%]	6
	Recovery	ASTM F 36 J	[%]	60
	Cold compressibility ε_{KSW}	DIN 28 090-2	[%]	6.0
	Cold recovery ε_{KRW}	DIN 28 090-2	[%]	3.0
	Hot creep $\varepsilon_{WSW/200}$	DIN 28 090-2	[%]	5.5
	Hot recovery $\varepsilon_{WRW/200}$	DIN 28 090-2	[%]	2.0
	Recovery R	DIN 28 090-2	[mm]	0.040
	Specific leakage rate	DIN 3535-6	[mg/(m·s)]	≤ 0.100
	Specific leakage rate $\lambda_{2.0}$	DIN 28 090-2	[mg/(m·s)]	0.100
	Fluid resistance	ASTM F 146		
	ASTM IRM903	5h/150°C		
	Weight change		[%]	6
	Thickness increase		[%]	2
	ASTM Fuel B	5h/23°C		
	Weight change		[%]	7
	Thickness increase		[%]	6
	Leachable Chloride content	FZT PV-001-133	[ppm]	≤ 150

* = Mode (typical value)

Issue: 07.10

Modifications: 15

Supersedes all prior versions

The technical data stated has been determined with standard material under laboratroy conditions. With the variety of installation and operating conditions no guarantee claim can be inferred regarding the behaviour of a flanged joint.

We reserve the right to product changes which serve the purpose of technical progress.

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