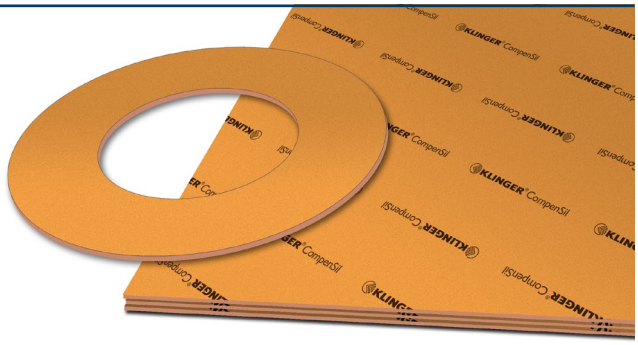
KLINGER® CompenSil

KLINGER Dichtungstechnik

KLINGER® CompenSil – excellent sealing performance also at low bolt loads.

A unique combination of mineral fibers bonded with NBR, KLINGER® CompenSil is used for liquids and gaseous media at lower pressures and temperatures. Able to also provide excellent sealing performance in tandem with low bolt loads – including compensation of inadequate bolting – it is resistant against oils, hydrocarbons, refrigerants and other chemicals.



Basis composition	Unique combination of mineral fibers bonded with NBR.
Color	Orange
Certificates	DIN-DVGW, DVGW H2-ready (ZP 5123), DIN 30653 (VP 401), TA-Luft (Clean air), DNV approval

Sheet size	2000 x 1500 mm
Thickness	0.8 mm, 1.0 mm, 1.5 mm, 2.0 mm, 3.0 mm

Tolerances

Thickness according to DIN 28091-1

Length: ± 50 mm

Width: ± 50 mm

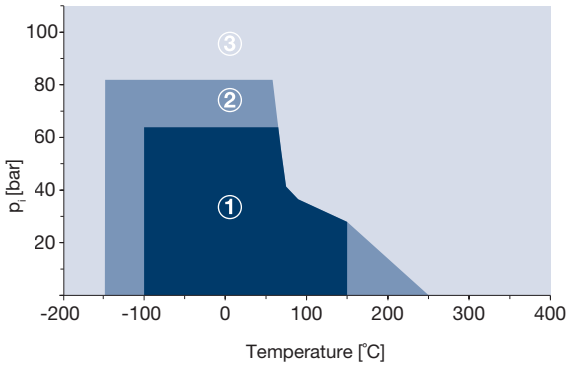
Industry

General industry / Chemical / Oil & Gas / Energy / Infrastructure / Pulp & Paper / Marine / Automotive / Food & Beverage

TECHNICAL DATA – Typical values for a thickness of 2.0 mm

Compressibility	ASTM F 36 J	%	22
Recovery	ASTM F 36 J	%	45
Stress relaxation DIN 52913	50 MPa, 16 h/175°C	MPa	33
	50 MPa, 16 h/300°C	MPa	18
KLINGER cold/hot compression	thickness decrease at 23°C	%	18
50 MPa	thickness decrease at 200°C	%	22
Tightness	DIN 28090-2	mg/(s x m)	0.01
Thickness increase after fluid	oil IRM 903: 5 h/150°C	%	10
immersion ASTM F 146	fuel B: 5 h/23°C	%	15
Density		g/cm³	1.5
ASME-Code sealing factors			
for gasket thickness 2.0 mm	tightness class 0.1mg/s x m	MPa	y 10
			m 2.9

P-T diagram – thickness 2.0 mm



The area of the P-T diagram

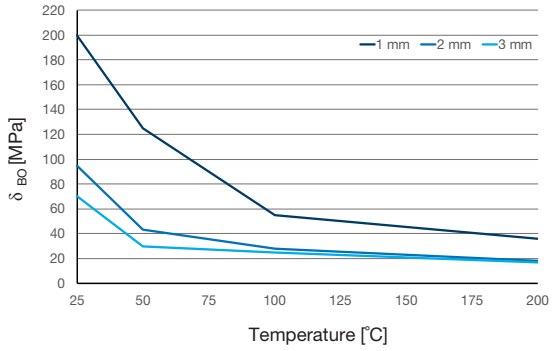
① In area one, the gasket material is normally suitable subject to chemical compatibility.

② In area two, the gasket material may be suitable but a technical evaluation is recommended.

③ In area three, do not install the gasket without a technical evaluation.

Always refer to the chemical resistance of the gasket to the media.

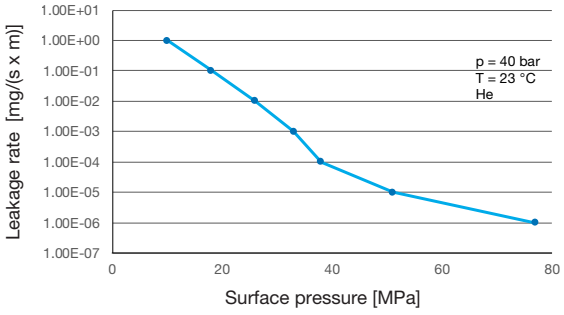
Sigma BO



Maximum surface pressure in operating conditions of Sigma BO

This diagram shows the maximum surface pressure in MPa with which the sealing material may be loaded, depending on the operating temperature. The characteristic curves apply to the specified sealing thicknesses. In contrast to Qsmax according to EN 13555, the surface pressures specified here are based on a maximum permissible reduction in thickness.

Tightness performance



The tightness performance graph

The graph shows the required stress at assembling to seal a certain tightness class. The determination of the graph is based on EN13555 test procedure which applies 40 bar Helium at room temperature. The sloping curve indicates the ability of the gasket to increase tightness with raising gasket stress.

Chemical resistance chart

Simplified overview of the chemical resistance depending on the most important groups of raw materials:

KLINGER® CompenSil — **A**: small or no attack — **B**: weak till moderate attack — **C**: strong attack

Paraffinic hydrocarbon	Motor fuel	Aromates	Chlorinated hydrocarbon fluids	Motor oil	Mineral lubricants	Alcohol	Ketone	Ester	Water	Acid (diluted)	Base (diluted)
A	**B**	**C**	**C**	**A**	**B**	**A**	**C**	**C**	**A**	**A**	**A**

For more information on chemical resistance please visit www.klinger.co.at.

Certified acc. to DIN EN ISO 9001:2015 Subject to technical alterations. Status: December 2024
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