



KLINGERSIL® C-8200 - premium high-pressure gasket for use with acids.

Glass fibers bonded with special acid-resistant elastomers characterize this premium high-pressure gasket primarily used in tandem with concentrated acids. Highly versatile, it is also resistant to a wide variety of other media.



Basis composition Glass fibers bonded with special acid-resistant elastomers.

Color White

Certificates DNV GL approval, TA-Luft (Clean air)

Sheet size 2000 x 1500 mm

Thickness 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

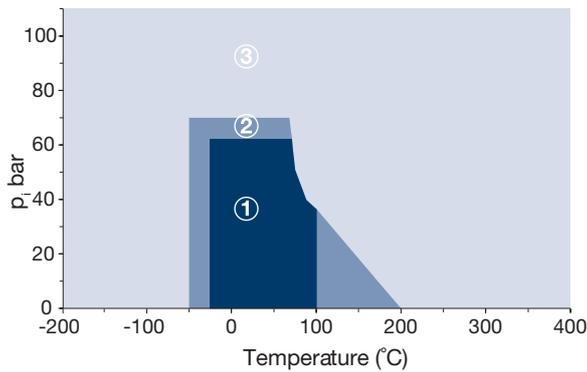
Industry

General industry / Chemical / Oil & Gas / Energy / Pulp & Paper

TECHNICAL DATA - Typical values for a thickness of 2.0 mm

Compressibility	ASTM F 36 J	%	9
Recovery	ASTM F 36 J	%	55
KLINGER cold/hot compression	thickness decrease at 23°C	%	7
25 MPa	thickness decrease at 200°C	%	15
Specific leakrate	VDI 2440	mbar x l/(s x m)	9.17E-09
Density		g/cm ³	1.7
Acid tests			
Thickness increase after fluid immersion ASTM F 146	HNO ₃ , 96%, 18 h/23°C	%	unsuitable
	H ₂ SO ₄ , 96%, 18 h/23°C	%	15
	H ₂ SO ₄ , 65%, 48 h/23°C	%	8
	oil IRM 903: 5 h/150°C	%	5
	fuel B: 5 h/23°C	%	10
Average surface resistance	ρO	Ω	5.8x10E11
Average specific volume resistance	ρD	Ω cm	4.1x10E12
Average dielectric strength	Ed	kV/mm	17.0
Average power factor	50 Hz	tan δ	0.228
Average dielectric coefficient	50 Hz	εr	9.4
ASME-Code sealing factors			
for gasket thickness 2.0 mm	tightness class 0.1mg/s x m	MPa	y 20
			m 3.0

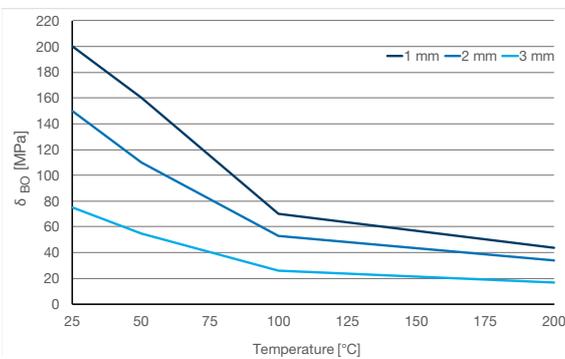
P-T diagram - thickness 2.0 mm



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.

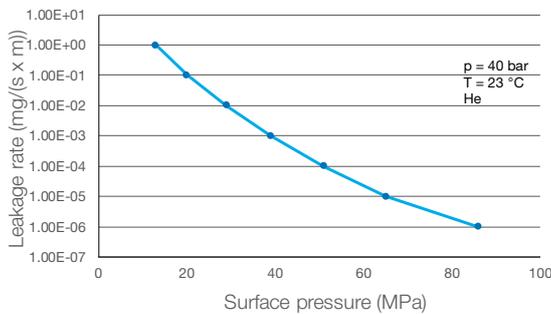
Sigma BO



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 Q_{smax} 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 40bar 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:

KLINGERSIL® C-8200						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)
C	C	C	C	C	C	A	B	C	A	A	A

For more information on chemical resistance please contact us

All information is based on years of experience in production and operation of sealing elements. However, in view of the wide variety of possible installation and operating conditions one cannot draw final conclusions in all application cases regarding the behaviour in gasket joint. The data may not, therefore, be used to support any warranty claims. This edition cancels all previous issues. Subject to change without notice.

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