

KLINGERSIL® C-4500

KLINGERSIL® C-4500 is a premium quality high-pressure gasket especially suitable for use with high temperature alkaline media and superheated steam. It is a superior performance product designed for the use in the chemical industry.

Carbon fibres and special heat resistant additives, bonded with NBR.
 Suitable for use with alkaline media and steam at higher temperatures as well as to oils, gases, salt solutions, fuels, alcohols, organic and inorganic acids, hydrocarbons, lubricants and refrigerants.



Key features:

- » Utilization of carbon fibres
- » Heat resistant additives
- » Resistant to creep and cold flow
- » Dimensionally stable

Benefits:

- » Suitable for high temperature alkaline media
- » Suitable for superheated steam

Certificates and approvals:

- » BAM-tested
- » DIN-DVGW
- » DIN-DVGW W 270
- » Elastomer-Guideline
- » ÖVGW Reg.No. G 2.143
- » German Lloyd
- » TA-Luft (Clean air)
- » Fire-Safe acc. to DIN EN ISO 10497

Properties: referring to KLINGERSIL® product range

SUPERIOR	_____			
EXCELLENT	█	█	█	█
VERY GOOD	█	█	█	█
GOOD	█	█	█	█
MODERATE	█	█	█	█
	MECHANICAL RESISTANCE	THERMAL RESISTANCE	SEALABILITY	CHEMICAL RESISTANCE

Industries:



Typical technical data for thickness 2.0 mm:

Compressibility ASTM F 36 J		%	11
Recovery ASTM F 36 J		%	60
Stress relaxation DIN 52913	50 MPa, 16 h/175°C	MPa	38
	50 MPa, 16 h/300°C	MPa	30
Stress relaxation BS 7531	40 MPa, 16 h/300°C	MPa	30
KLINGER cold/hot compression	thickness decrease at 23°C	%	10
50 MPa	thickness decrease at 300°C	%	15
Tightness	DIN 28090-2	mg/s x m	0.05
Specific leakrate λ	VDI 2440	mbar x l/s x m	4.94E-06
Thickness increase after fluid	oil IRM 903: 5 h/150°C	%	3
immersion ASTM F 146	fuel B: 5 h/23°C	%	5
Density		g/cm ³	1.6
Average surface resistance	ρO	Ω	8.0x10E04
Thermal conductivity	λ	W/mK	0.43
Classification acc. to BS 7531:2006	Grade AX		
ASME-Code sealing factors			
for gasket thickness 1.0 mm	tightness class 0.1 mg/s x m	MPa	y 20 m 1.0
for gasket thickness 2.0 mm	tightness class 0.1 mg/s x m	MPa	y 20 m 1.6
for gasket thickness 3.0 mm	tightness class 0.1 mg/s x m	MPa	y 20 m 2.0

Dimensions of the standard sheets:

Sizes:

1000 x 1500 mm, 2000 x 1500 mm

Thicknesses:

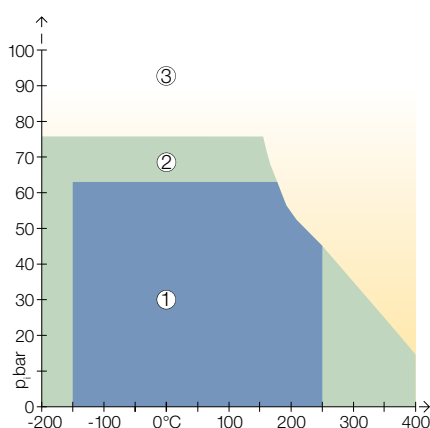
0.5 mm, 1.0 mm, 1.5 mm, 2.0 mm, 3.0 mm

Tolerances:

Thickness acc. DIN 28091-1
 Length ± 50 mm, width ± 50 mm

Other thicknesses, sizes and tolerances on request.

pT diagram for thickness 2.0 mm:



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.

