

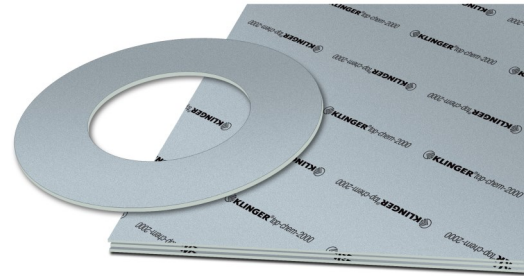
# KLINGER®top-chem 2000

Exceptional performance at high mechanical requirements

KLINGER®top-chem 2000 is a universal heavy-duty gasket material which offers exceptional performance in applications with high mechanical requirements at high temperatures. It is the only PTFE gasket material with a Fire-Safe Certificate.

Use KLINGER®top-chem 2000 in strongly acidic and alkaline applications as well as in steam and oxygen. Suitable for an extremely wide range of applications in the chemical and petrochemical industry, as well as in the ship building industry for the transport of chemicals. This material also meets FDA conformity.

Basis: PTFE gasket material filled with SiC (Silicon carbide).



## TYPICAL VALUES REFER TO 2.0 MM THICK MATERIAL UNLESS NOTED

Compressibility ASTM F36 M	4 %
Recovery ASTM F36 M	50 %
Stress relaxation DIN 52913	
30 MPa, 16 h/150°C	28 MPa
50 MPa, 16h/260°C	36 MPa
KLINGER Cold/Hot Compression Test 50 MPa	
Thickness Decrease 73°F (23°C)	5 %
Thickness Decrease 500°F (260°C)	11 %
Tightness DIN 28090-2	0.08 mg/s x m
Thickness/Weight Increase	
H <sub>2</sub> SO <sub>4</sub> , 100%, 18 h/23°C	1 / 1 %
HNO <sub>3</sub> , 100%, 18 h/23°C	1 / 2 %
NaOH, 33%, 72 h/110 °C	1 / 3 %
Density	2.5 g/cm <sup>3</sup>
Average surface resistance pO	6.9x10E12 Ω
Average specific volume resistance pD	2.2x10E12 Ω cm
Average dielectric strength E <sub>d</sub>	3.6 kV/mm
Average power factor 50 Hz	0.166 tanδ
Average dielectric coefficient 50 Hz	10.6 ε <sub>r</sub>
Thermal conductivity λ	0.60 W/mK
Color	Grey

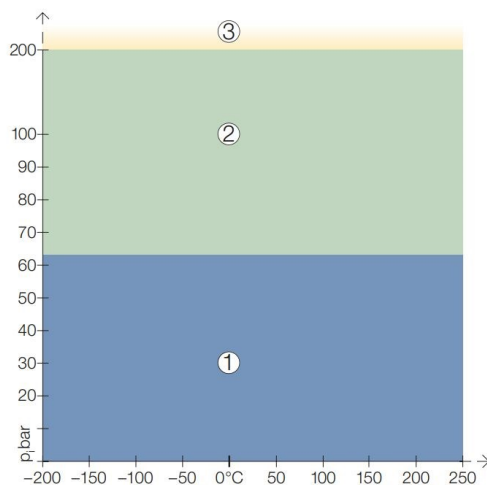
## KLINGER®top-chem 2000

- CERTIFICATES & APPROVALS**
- » DIN-DVGW
  - » DIN-DVGW W 270
  - » OXYGEN tested
  - » KTW-Guideline
  - » DNV GL
  - » WRAS approval
  - » TA-Luft (Clean air)
  - » Fire-Safe acc. to DIN EN ISO 10497
  - » FDA conformity
  - » Regulation (EU) No. 1935/2004

- KEY FEATURES & BENEFITS**
- » Resistant to creep and cold flow
  - » Consistent material composition
  - » High retention of the bolt load
  - » Superior chemical resistance
  - » No ageing of the material

The pressure/temperature graphs shown are the most current method of determining the suitability of a gasket material in a known environment. However, chemical compatibility must also be considered.

pT diagram for thickness 2.0 mm:



In area ① the gasket material is suitable using common installation practices subject to chemical compatibility.

In area ② appropriate measures are necessary for installation of the gasket to ensure maximum performance. Please call or refer to KLINGERexpert for assistance.

In area ③ do not install gaskets in these applications without first referring to KLINGERexpert or contacting KLINGER's technical support service.

The ability of a gasket to make and maintain a seal depends not only on the style and quality of the gasket material, but also on medium being sealed, the flange design, the amount of pressure applied to the gasket by the bolts and how the gasket is assembled onto the flanges and tightened. These factors are beyond the manufacturer's control.

**KLINGER Thermoseal**

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