

KLINGER®top-chem 2003

High adaptability and tightness even at low surface loads

KLINGER top-chem 2003 is a premium PTFE gasket material filled with hollow glass microspheres for dependable sealing in demanding chemical applications. It combines excellent chemical resistance with high compressibility and outstanding sealing performance at low gasket stress, making it well suited for strongly acidic and alkaline services at moderate temperatures and loads.



TYPICAL VALUES REFER TO 2.0 MM THICK MATERIAL UNLESS NOTED

Compressibility ASTM F36 M	18 %
Recovery ASTM F36 M	35 %
Stress relaxation DIN 52913 30 MPa, 16 h/150°C	13 MPa
KLINGER Cold/Hot Compression Test 25 MPa	
Thickness Decrease 73°F (23°C)	10 %
Thickness Decrease 500°F (260°C)	39 %
Tightness DIN 28090-2	0.01 mg/s x m
Thickness/Weight Increase	
H ₂ SO ₄ , 100%, 18 h/23°C	1 / 1 %
HNO ₃ , 100%, 18 h/23°C	0 / 5 %
NaOH, 33%, 72 h/110 °C	1 / 5 %
Density	1.7 g/cm ³
Average surface resistance pO	9x10E12 Ω
Average specific volume resistance pD	2.6x10E12 Ω cm
Average dielectric strength E _d	16.7 kV/mm
Average power factor 50 Hz	0.085 tanδ
Average dielectric coefficient 50 Hz	2.8 εr
Thermal conductivity λ	0.18 W/mK
Color	Light Blue

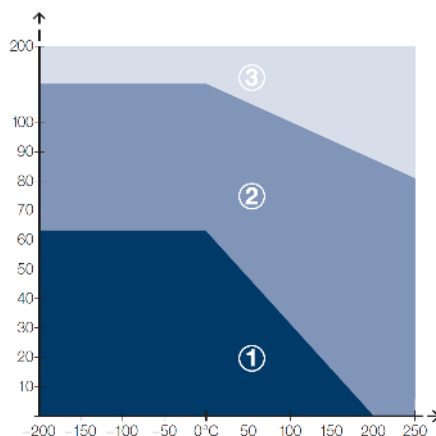
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CERTIFICATES & APPROVALS	» Oxygen-tested	» DNV approval
	» DIN-DVGW	» TA Luft (Clean air)
	» DVGW H2-ready (ZP 5123)	» FDA conformity
	» DIN 16421 (W 270)	» Regulation (EU) No. 1935/2004
	» KTW-BWGL	» VDI 2200 blowout

KEY FEATURES & BENEFITS	» High compressibility	» Superior chemical resistance
	» Resistant to cold flow	» Conforms easily
	» Consistent material composition	» No ageing of the material
	» Excellent sealing at low stress	

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.

P-T Diagram - 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

2350 Campbell Road, Sidney, Ohio 45365

Tel: +1 937 498 2222