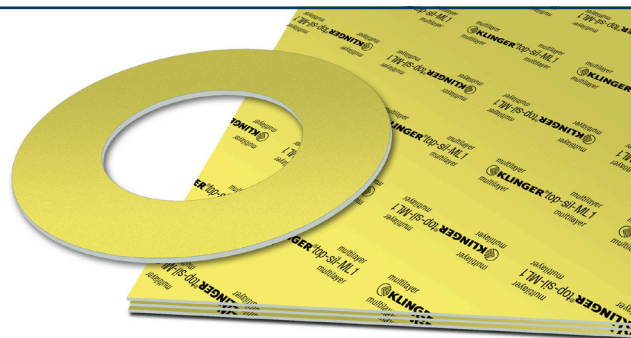




## KLINGER® top-sil ML1 - unique multi-layer material concept - a milestone for fiber-reinforced gaskets.

This gasket material makes use of the effects achieved by combining synthetic fibers and different elastomers into a special multi-layer sealing matrix. The result: An extended service life and improved flexibility at higher temperatures. Highly versatile, it can be utilized for a wide range of media and applications, including oils, water, steam, gases, salt solutions, fuels, alcohols, moderate organic and inorganic acids, hydrocarbons, lubricants and refrigerants.



**Basis composition** Synthetic fibers and elastomers, bonded in a multi-layer structure.

**Color** Yellow

**Certificates** BAM-tested, DIN-DVGW, DNV GL approval, TA-Luft (Clean air), Fire-safe acc. to DIN EN ISO 10497

**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	%	9
Recovery	ASTM F 36 J	%	50
Stress relaxation DIN 52913	50 MPa, 16 h/175°C	MPa	34
	50 MPa, 16 h/300°C	MPa	28
Stress relaxation BS 7531	40 MPa, 16 h/300°C	MPa	29
KLINGER cold/hot compression 50 MPa	thickness decrease at 23°C	%	8
	thickness decrease at 300°C	%	15
Tightness	DIN 28090-2	mg/(s x m)	0.05
Specific leakrate	VDI 2440	mbar x l/(s x m)	3.51E-06
Thickness increase after fluid immersion ASTM F 146	oil IRM 903: 5 h/150°C	%	4
	fuel B: 5 h/23°C	%	8
Density		g/cm <sup>3</sup>	1.7
Average surface resistance	ρO	Ω	9.3x10E12
Average specific volume resistance	ρD	Ω cm	3.8x10E12
Average dielectric strength	Ed	kV/mm	18.8
Average power factor	50 Hz	tan δ	0.048
Average dielectric coefficient	50 Hz	εr	7.3
Thermal conductivity	λ	W/mK	0.36
Classification acc. to BS 7531:2006	Grade AX		
ASME-Code sealing factors for gasket thickness 2.0 mm	tightness class 0.1mg/s x m	MPa	y 15
			m 2.2

