

# Flat gaskets from KLINGER® top-chem

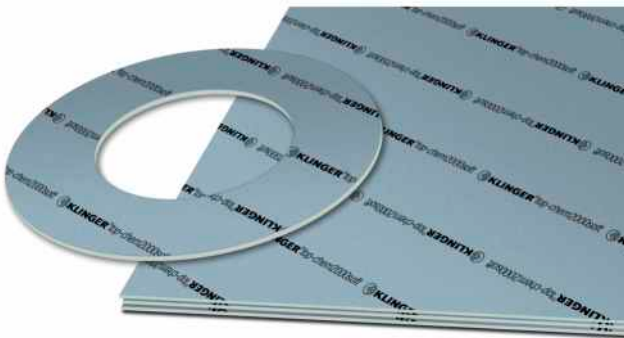
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## Soft material flat gaskets from KLINGER® top-chem

With the superb quality of the KLINGER® top-chem series, you have all of the advantages of PTFE gaskets without the usual disadvantages. With KLINGER® top-chem you can really push the boundaries of what's possible. You'll save productive time and gain greater system security.

With our seamless coverage of all applications and hugely detailed description of the performance features of each product, you can avoid any gaps in security.

The following brief descriptions of the three different materials will give you an overview and make your choice easier:



### KLINGER®top-chem 2000soft

- PTFE sealing material filled with silicon carbide
- Colour: grey
- Excellent compressibility with best mechanical properties
- High adaptability and tightness
- Outstanding chemical resistance in applications with strong acids and alkalis
- High-quality sealing material for many areas of application

#### Approvals and test reports:

TA-Luft

### KLINGER®top-chem 2003

- PTFE sealing material with inorganic fillers
- Colour: white
- Highly compressible - very good sealing properties even at low surface stresses
- pH 0 - 14
- can be used with all chemicals, except for alkaline solutions, liquid or gaseous fluorine and hydrofluoric acid

#### Approvals and test reports:

DVGW, KTW, FDA, BAM (liquid oxygen), TA Luft, Germanischer Lloyd.

## Flat gaskets from KLINGER® top-chem



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### KLINGER®top-chem 2005

- PTFE sealing material with inorganic fillers
- Colour: red
- Very good chemical resistance to strong acids
- Good mechanical properties
- pH 0 – 14
- can be used with all chemicals, except for alkaline solutions, liquid or gaseous fluorine and hydrofluoric acid

#### Certification:

DVGW, KTW, FDA, BAM, TA Luft, Germanischer Lloyd.

### KLINGER®top-chem 2006

- Barium sulphide filled PTFE material
- Colour: white
- Very good chemical resistance to strong alkaline applications and liquid acids
- Good mechanical properties
- pH 0 - 14
- can be used with all chemicals, except for alkaline solutions, gaseous fluorine and liquid sulphuric acid.

#### Approvals and test reports:

DVGW, KTW, FDA, BAM, TA Luft, Germanischer Lloyd.

### Technical data

		KLINGER®top-chem				
		2000soft	2003	2005	2006	
Reference thickness	mm	2,0	1,5	1,5	1,5	
Density	g/cm <sup>3</sup>	2,1	1,7	2,2	3,0	
Compressibility	ASTM F36J	%	15	18	3	4
Recovery	ASTM F36J	% min	20	30	40	45
Leak-tightness DIN 28090-2	mg/s*m	0,05	0,01	0,02	0,01	
Stress relaxation DIN 52913 30 MPa 16h 150°C Stability according to Klinger	MPa	25	13	25	18	
Compression						
23°C / 50 MPa	%	17	9	6	10	
260°C / 25 MPa	%	20	38	30	40	
Thickness / weight increase						
H <sub>2</sub> SO <sub>4</sub>	100 % 18 h / 23 °C	%	1/1	1/1	1/1	-
HNO <sub>3</sub>	100 % 18 h / 23 °C	%	1/2	0/5	1/2	1/2
NaOH	33 % 72 h / 110 °C	%	2/3	1/5	-	1/1
H <sub>2</sub> O	5h / 100 °C		1/1	-	-	-