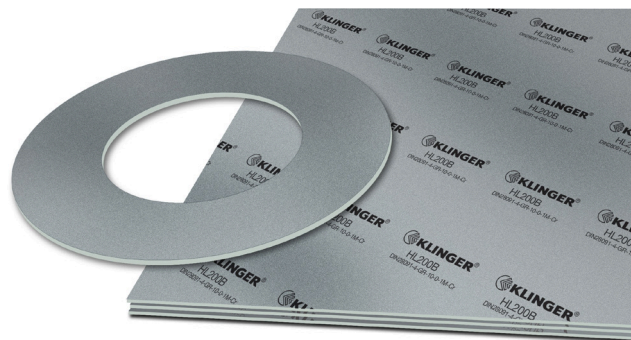


KLINGER®Flexible Graphite HL - the flexible graphite standard.

HL is the standard industrial grade graphite sheeting with superior chemical resistance. The flexible graphite material is highly compressible & compactable allowing for low gas permeability with low electrical resistance.

The grade is especially superior working with enamel surface as well as against strongly corrosive media.



Basis composition Flexible graphite foil

Color Grey

Certificates Per request

Sheet size 11000 x 1000 mm, 1500 x 1500 mm, 2000 x 1000 mm or as roll per request

Thickness 0.8 mm, 1.0 mm, 1.5 mm, 2.0 mm, 3.0 mm

Tolerances

Thickness: ± 5 %

Length: ± 5 mm

Width: ± 5 mm

Industry

General industry / Chemical / Oil & Gas / Energy / Pulp & Paper / Marine / Automotive

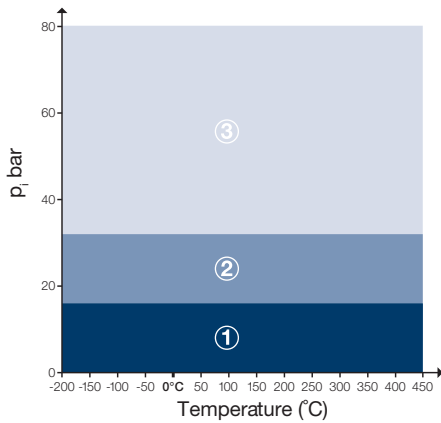
TECHNICAL DATA - Typical values for a thickness of 2.0 mm

Density of the graphite layer	DIN 28090-2	g/cm ³	1.0
Purity of graphite ¹⁾	DIN 51903	%	≥ 99.0
Compressibility	ASTM F36 A	%	40 - 50
Recovery	ASTM F36 A	%	8 - 15
Stress relaxation DIN 52913	16 h/ 50 MPa/ 300°C	MPa	≥ 46
Klinger cold/hot compression 50 MPa	Thickness decrease at 23°C	%	35 - 50
	Thickness decrease at 300°C	%	2 - 5
Specific leak rate	DIN 28090-2	mg/ s x m	< 0.10
Chloride content of graphite layer ²⁾	DIN 28090-2	ppm	≤ 50

1) High purity graphite with a purity of ≥99.8 with low sulphur and chloride levels available per request.

2) Detailed specifications of the used graphite foils are found in our Graphite vade mecum, which will be sent to you on request with pleasure

P-T diagram - thickness 2.0 mm



The area of the P-T diagram

- 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.

Chemical resistance chart

Simplified overview of the chemical resistance depending on the most important groups of raw materials:

KLINGER® Flexible Graphite HL											
						A: small or no attack	B: weak till moderate attack	C: strong attack			
Paraffinic hydrocarbon	Motor fuel	Aromates	Chlorinated hydrocarbon fluids	Motor oil	Mineral lubricants	Alcohol	Ketone	Ester	Water	Acid (diluted)	Base (diluted)
A	A	A	A	A	A	A	A	A	A	B	B

For more information on chemical resistance please visit www.klinger-ag.ch.

All information is based on years of experience in production and operation of sealing elements. However, in view of the wide variety of possible installation and operating conditions one cannot draw final conclusions in all application cases regarding the behaviour in gasket joint. The data may not, therefore, be used to support any warranty claims. This edition cancels all previous issues. Subject to change without notice.

