

# KLINGER® Graphite Laminate SLS

KLINGER® Graphite Laminate SLS is especially suitable for weak flanges at high temperatures up to 450°C.

The gasket material consists of expanded graphite and a glued stainless steel insert. The material is for universal use especially in combination with weak flanges (Email, glass) and for sealing of liquid level gauges. Due to the low amount of glue (<1% of the graphite) the chemical and thermal resistance of the graphite is not influenced.



## Key features:

- » Stainless steel foil as insert
- » Excellent chemical resistance
- » Excellent high temperature resistance

## Benefits:

- » Provides excellent adaptability to any sealing surface
- » Seals irregular flanges
- » Conforms easily
- » Stable physical properties over the whole temperature range

## Certificates and approvals:

- » DIN-DVGW
- » Fire Safe acc. to DIN EN ISO 10497
- » BAM tested

## Properties: referring to Graphite product range

SUPERIOR	_____			
EXCELLENT	_____			
VERY GOOD	_____			
GOOD	_____			
MODERATE	_____			
	MECHANICAL RESISTANCE	THERMAL RESISTANCE	SEALABILITY	CHEMICAL RESISTANCE

## Industries:



INDUSTRY



CHEMICAL



OIL & GAS



ENERGY



INFRASTRUCTURE



PULP & PAPER



TRANSPORT



FOOD & BEVERAGES



PHARMA

## Typical technical data for KLINGER® Graphite Laminate SLS:

			1.0 mm	1.5 mm	2.0 mm
Density of the graphite layer	DIN 28090-2	g/cm <sup>3</sup>	1.0	1.0	1.0
Purity of graphite <sup>1)</sup>	DIN 51903	%	≥ 99.0	≥ 99.0	≥ 99.0
Metallic reinforcement	Tanged metal		1.4401 (or 1.4404)		
	Thickness	mm	0.05	0.05	0.05
	Number of sheets		1	1	1
Compressibility ASTM F36 J	ASTM F36 J	%	40 - 50	40 - 50	40 - 50
Recovery ASTM F36 J	ASTM F36 J	%	10 - 15	10 - 15	10 - 15
Stress relaxation DIN 52913	16 h/ 50 MPa/ 300°C	MPa	≥ 45	≥ 45	≥ 45
Klinger cold/hot compression 50 MPa	Thickness decrease at 23°C	%	42 - 48	42 - 48	45 - 50
	Thickness decrease at 300°C	%	2 - 4	2 - 4	2 - 4
Specific leakrate $\Lambda$	DIN 28090-2	mg/ s x m	< 0.06	< 0.10	< 0.10
Chloride content of graphite layer <sup>2)</sup>	DIN 28090-2	ppm	≤ 40	≤ 40	≤ 40

1) Nuclear quality with a purity of ≥99.8 available on 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

## Dimensions of the standard sheets:

### Sizes:

1000 x 1000 mm, 2000 x 1000 mm

### Thicknesses:

0.6 mm, 0.8 mm, 1.0 mm, 1.5 mm, 2.0 mm, 3.0 mm

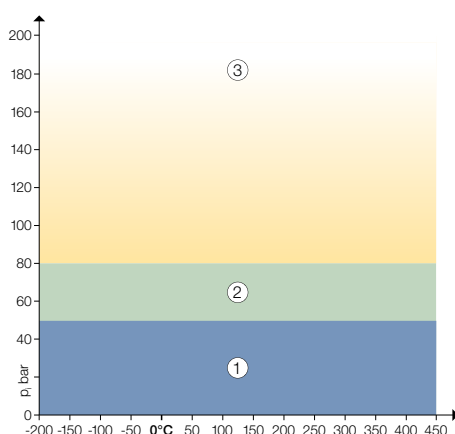
### Tolerances:

Thickness ± 5%

Length ± 4 mm, width ± 4 mm

Other thicknesses, sizes and inserts on request.

## pT diagram for thickness 2.0 mm:



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.

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Certified acc. to DIN EN ISO 9001:2008 Subject to technical alterations. Status: June 2016

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