

# KLINGER® Graphite Laminate PDM

KLINGER® Graphite Laminate PDM is suitable for high-pressure applications, hot water and steam at high temperatures up to 450°C.

Glueless gasket material consisting of expanded graphite and two 0.1mm thick tanged stainless steel insert.

The material is free from resins, impregnations or other organic compounds. Therefore it is free of eventual toxic risks. Stable physical properties over the whole temperature range.



## Key features:

- » 2 mechanically bonded tanged stainless steel inserts
- » Free of organic resins or toxic risks
- » Excellent chemical resistance
- » Excellent high temperature resistance

## Benefits:

- » Stable physical properties over the whole temperature range
- » Very good tightness
- » Suitable for high pressure applications

## Certificates and approvals:

- » DIN-DVGW

## Properties: referring to Graphite product range

SUPERIOR	[Bar chart showing Superior performance for Mechanical Resistance]			
EXCELLENT	[Bar chart showing Excellent performance for Mechanical Resistance]	[Bar chart showing Excellent performance for Thermal Resistance]	[Bar chart showing Excellent performance for Sealability]	[Bar chart showing Excellent performance for Chemical Resistance]
VERY GOOD	[Bar chart showing Very Good performance for Mechanical Resistance]	[Bar chart showing Very Good performance for Thermal Resistance]	[Bar chart showing Very Good performance for Sealability]	[Bar chart showing Very Good performance for Chemical Resistance]
GOOD	[Bar chart showing Good performance for Mechanical Resistance]	[Bar chart showing Good performance for Thermal Resistance]	[Bar chart showing Good performance for Sealability]	[Bar chart showing Good performance for Chemical Resistance]
MODERATE	[Bar chart showing Moderate performance for Mechanical Resistance]	[Bar chart showing Moderate performance for Thermal Resistance]	[Bar chart showing Moderate performance for Sealability]	[Bar chart showing Moderate performance for Chemical Resistance]
	MECHANICAL RESISTANCE	THERMAL RESISTANCE	SEALABILITY	CHEMICAL RESISTANCE

## Industries:



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

			1.0 mm	1.5 mm	2.0 mm
Density of the graphite layer	DIN 28090-2	g/cm <sup>3</sup>	1.3	1.3	1.3
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	0.10	0.10	0.10
	Number of sheets		2	2	2
Compressibility ASTM F36 J	ASTM F36 J	%	15 - 25	15 - 25	15 - 25
Recovery ASTM F36 J	ASTM F36 J	%	35 - 45	35 - 45	35 - 45
Stress relaxation DIN 52913	16 h/ 50 MPa/ 300°C	MPa	≥ 48	≥ 48	≥ 48
Klinger cold/hot compression 50 MPa	Thickness decrease at 23°C	%	20 - 28	20 - 28	20 - 28
	Thickness decrease at 300°C	%	1 - 3	1 - 3	1 - 3
Specific leakrate λ	DIN 28090-2	mg/ s x m	< 0.08	< 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, 1500 x 1500 mm

### Thicknesses:

1.0 mm, 1.5 mm, 2.0 mm, 3.0 mm

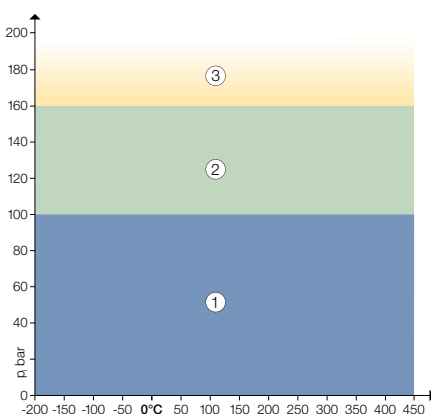
### Tolerances:

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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