

KLINGER® Graphite Laminate PSM

The pure graphite gasket material with stainless steel tang insert

KLINGER® Graphite Laminate PSM has a 0.1mm thick perforated stainless steel insert. The insert aids material handling properties and also increases the blow-out resistance. The insert is mechanically bonded to pure exfoliated graphite and therefore does not rely on adhesive.

Stable physical properties over the whole temperature range. KLINGER® Graphite Laminate PSM is suitable for hot water and steam at high temperatures up to 842°F (450°C).

In order to prevent the gasket material from sticking to the flange surface (even at high temperatures), the graphite surface can be given a non-stick coating at the customer's request. With this process, the gasket material's surface is coated and not impregnated.



TYPICAL VALUES REFER TO 2.0 MM THICK MATERIAL UNLESS NOTED

Density of the graphite layer DIN28090-2	1.0 g/cm ³
Purity of Graphite DIN 51903	≥ 99.0 %
Metallic reinforcement	
Plain metal	AISI 316 (L)
Thickness	0.05 mm
Number of sheets	1
Compressibility ASTM F36A	35 - 45 %
Recovery ASTM F36A	12 - 18 %
Creep relaxation DIN 52913 16h/50 MPa/300°C	≥ 46 MPa
KLINGER cold/hot compression 50 MPa	
Thickness decrease at 23°C	35 - 45 %
Thickness decrease at 300°C	1 - 3 %
Specific leak rate DIN 28090-2	< 0.10 mg/s x m
Chloride content of graphite layer DIN 28090-2	≤ 40 ppm
Color	Grey
Non-stick coating	Upon request

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KEY FEATURES AND BENEFITS

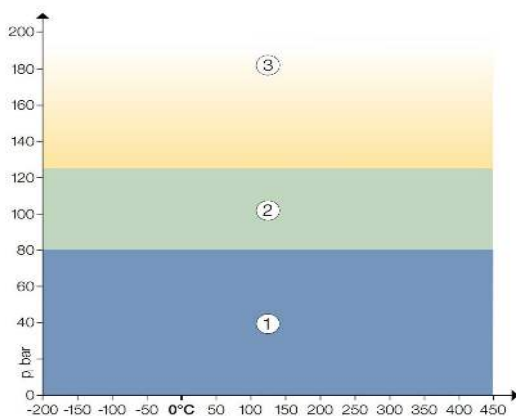
- » Mechanically bonded tanged stainless steel insert
- » Free of organic resins or toxic risks
- » Excellent chemical resistance
- » Excellent high temperature resistance
- » Stable physical properties over the whole temperature range
- » Provides excellent adaptability to any sealing surface
- » Very good tightness

CERTIFICATES AND APPROVALS

- » DIN-DVGW
- » KTW-Guideline
- » Fire-Safe acc. to DIN EN ISO 10497
- » German Lloyd
- » BAM tested

The pressure/temperature graphs shown are the most current method of determining the suitability of a gasket material in a known environment. However, chemical compatibility must also be considered.

pT diagram for thickness 2.0 mm:



In area ① the gasket material is suitable using common installation practices subject to chemical compatibility.

In area ② appropriate measures are necessary for installation of the gasket to ensure maximum performance. Please call or refer to KLINGERexpert for assistance.

In area ③ do not install gaskets in these applications without first referring to KLINGERexpert or contacting KLINGER's technical support service.

The ability of a gasket to make and maintain a seal depends not only on the style and quality of the gasket material, but also on medium being sealed, the flange design, the amount of pressure applied to the gasket by the bolts and how the gasket is assembled onto the flanges and tightened. These factors are beyond the manufacturer's control.

KLINGER Thermoseal

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