

# Approval Certificate



This is to certify, that the undernoted products have been approved in accordance with the relevant requirements of the GL Approval System.

Certificate No. 47 992 - 03 HH

Company KLINGER AG Egliswil  
Industrie Nord  
Webereistrasse 1  
5704 Egliswil, SWITZERLAND

Product FLAT GASKETS

Type KLINGER GRAPHITE LAMINATE PSM...B WITH PEGGED STAINLESS STEEL  
INSERT, NO-ASBESTOS

Technical Data /  
Application TECHNICAL DATA (continued)

Type	PSM...B
Purity of Graphite	min. 98 [%] carbon
Density of Graphite	1.00 [g/cm <sup>3</sup> ] +/- 5 [%]
Tang insert / thickness	AISI 316 / 0.10 [mm]
Compressibility	25 [%] - 45 [%] {ASTM F36A}
Recovery	12 [%] -20 [%] {ASTM F36A}
Soluble chloride content	max. 40 [ppm]

Approval Standard • ASTM and DIN

Documents • Test Reports  
• Audit Report, Ref.-No.: 0107010, dated: 24.10-2013  
• ISO 9001:2008, ISO 14001:2004  
• GL-Ref.-No.: 13-078658

Remarks None

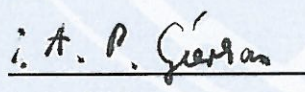
Valid until 2018-12-03

File No. XI.B.03

**Germanischer Lloyd**

Hamburg, 2013-11-26

  
Michael Kämpf

  
Peter Gierhan

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## RANGE OF APPLICATION

The gaskets may be used under consideration of the mechanical and physical properties as well as the chemical resistance as follows:

- Ship's piping systems excluding cargo lines on Chemical and Gas Tankers carrying propylene oxide and mixtures of ethylene / propylene oxide.
- Maximum allowable working pressure and temperature according to the specification of the manufacturer.

## TECHNICAL DATA

Type	PSM...B
Thickness increase ASTM Oil 3	max. 2 [%]
Stress relaxation	min. 48 [MPa] (DIN 52913)
Continuous service temperature in oxidizing atmosphere	max. 450 [°C]
Thicknesses	0.60, 0.80, 1.00, 1.50, 2.00, 3.00 [mm]
Thicknesses tolerance	+/- 5 [%] of nominal thickness
Sheet size	1000 x 1000 +/- 5 [mm] 1500 x 1500 +/- 5 [mm]

The selection of the gaskets for the corresponding application and the appropriate installation is to be in acc. with the instructions of the manufacturer.

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Hamburg, 2013-11-26

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