Approval Certificate

GL (logo)

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

Certificate No.	**50 628 - 03 HH**
Company	**KLINGER AG Egliswil** **Industrie Nord** **Webereistrasse 1** **5704 Egliswil, SWITZERLAND**
Product	**FLAT GASKETS**
Type	**KLINGER MILAM LAMINATE PSS130 / 150 / 200 / 300, MICA SHEETS LAMINATED WITH PEGGED STAINLESS STEEL INSERT, NO-ASBESTOS**
Technical Data / Application	**TECHNICAL DATA (continued)**

Type	PSS130
Compressibility	12 [%] - 20 [%] {ASTM F36A}
Recovery	30 [%] - 40 [%] {ASTM F36A}
Ignition loss	< 5 [%] {DIN 52911}
Stress relaxation	> 33 [Mpa] {50 [Mpa] / 300 [°C], DIN 52913}
Stress relaxation	> 28 [Mpa] {40 [Mpa] / 300 [°C], BS 7531}
Tang insert / thickness	AISI 316 / 0.10 [mm]
Continuous service temperature	max. 900 [°C]

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	

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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 / propylen oxide.
- Maximum allowable working pressure and temperature according to the specification of the manufacturer.

TECHNICAL DATA (continued)

Type	PSS130
Gas leakage at 30 MPA / 6 bars	max. 0.10 [mg/s/m], temperature: 100 to 400 [°C], gasket sizes: 90 x 50 [mm]
Stress	max. 100 [MPa]
Thickness	1.30 [mm]
Thickness tolerance	+/- 8 [%] of nominal thickness
Sheet sizes	1200 x 1000 x 1.30 [mm]

Type	PSS150
Compressibility	12 [%] - 20 [%] {ASTM F36A}
Recovery	35 [%] - 45 [%] {ASTM F36A}
Ignition loss	< 5 [%] {DIN 52911}
Stress relaxation	> 33 [MPa] {50 [MPa] / 300 [°C], DIN 52913}
Stress relaxation	> 28 [MPa] {40 [MPa] / 300 [°C], BS 7531}
Tang insert / thickness	AISI 316 / 0.10 [mm]
Continuous service temperature	max. 900 [°C]
Gas leakage at 30 MPA / 6 bars	max. 0.10 [mg/s/m], temperature: 100 to 400 [°C], gasket sizes: 90 x 50 [mm]
Stress	max. 90 [MPa]
Thickness	1.50 [mm]
Thickness tolerance	+/- 8 [%] of nominal thickness
Sheet sizes	1200 x 1000 x 1.50 [mm]

Type	PSS200
Compressibility	15 [%] - 23 [%] {ASTM F36A}
Recovery	32 [%] - 42 [%] {ASTM F36A}
Ignition loss	< 5 [%] {DIN 52911}
Stress relaxation	> 33 [MPa] {50 [MPa] / 300 [°C], DIN 52913}
Stress relaxation	> 28 [MPa] {40 [MPa] / 300 [°C], BS 7531}

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TECHNICAL DATA

Type   PSS200
Tang insert / thickness   AISI 316 / 0.10 [mm]
Continuous service temperature   max. 900 [°C]
Gas leakage at 30 MPA / 6 bars   max. 0.10 [mg/s/m], temperature: 100 to 400 [°C], gasket sizes: 90 x 50 [mm]
Stress   max. 80 [Mpa]
Thickness   2.00 [mm]
Thickness tolerance   +/- 10 [%] of nominal thickness
Sheet sizes   1200 x 1000 x 2.00 [mm]

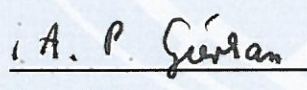Type   PSS300
Compressibility   18 [%] - 26 [%] {ASTM F36A}
Recovery   28 [%] - 38 [%] {ASTM F36A}
Ignition loss   < 15 [%] {DIN 52911}
Stress relaxation   > 30 [Mpa] {50 [Mpa] / 300 [°C], DIN 52913}
Stress relaxation   > 20 [Mpa] {40 [Mpa] / 300 [°C], BS 7531}
Two tang inserts / thickness   AISI 316 / 0.10 [mm]
Continuous service temperature   max. 900 [°C]
Gas leakage at 40 MPA / 6 bars   max. 1.50 [mg/s/m], temperature: 150 to 400 [°C], gasket sizes: 90 x 50 [mm]
Stress   max. 80 [Mpa]
Thickness   3.20 [mm]
Thickness tolerance   +/- 10 [%] of nominal thickness
Sheet sizes   1200 x 1000 x 3.20 [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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