

# Type Approval Certificate



This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the GL Type Approval System.

Certificate No. 47 710 - 03 HH

Company Rich. Klinger Dichtungstechnik GmbH & Co. KG  
Am Kanal 8 - 10  
2352 Gumpoldskirchen, AUSTRIA

Product Description FLAT GASKETS

Type KLINGERTop-graph-2000  
KLINGERTop-graph-2009

Environmental Category None

Technical Data / TECHNICAL DATA (continued)

Range of Application	Type	KLINGERTop-graph-2000
	Density	1.75 [g/cm <sup>3</sup> ]
	Compressibility	10% { ASTM F 36 J }
	Recovery	=/≥ 60% { ASTM F 36 J }
	Tightness	0.5 [ml/min] { DIN 3535-6 }
	Soluble chloride content	<50 [ppm]
	Klinger cold / hot compression, 50 MPa	thickness decrease at 23 [°C]: 10% thickness decrease at 300 [°C]: 10%

## 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.

Test Standard • ASTM and DIN

Documents • Test Reports  
• Technical Data  
• Audit Report

Remarks None

Valid until 2013-11-20

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File No. II.C.09

Hamburg, 2008-11-20

Type Approval Symbol



Germanischer Lloyd

*Hanspeter Raschle*  
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*Peter Gierhan*  
Peter Gierhan

This certificate is issued on the basis of "Guidelines for the Performance of Type Approvals Part 1, Procedure".

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## TECHNICAL DATA

Type	KLINGERTop-graph-2009
Density	2.25 [g/cm <sup>3</sup> ]
Compressibility	9% { ASTM F 36 J }
Recovery	=/> 60% { ASTM F 36 J }
Tightness	0.1 [mg/sm]
Soluble chloride content	150 [ppm]
Klinger cold / hot compression, 50 MPa	thickness decrease at 23 [°C]: 10%
	thickness decrease at 300 [°C]: 10%

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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