

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. 98 950 - 97 HH

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

Product Description FLAT GASKETS

Type KLINGERTop-chem-2003 / 2005 / 2006

Environmental Category None

Technical Data / TECHNICAL DATA (continued)

Range of Application	Type	KLINGERTop-chem-2003
	Density	1.7 [g/cm ³]
	Compressibility	18% { ASTM F 36 J }
	Recovery	=/ > 40% { ASTM F 36 J }
	Tightness	0.1 [ml/min] { DIN 3535-6 }
	Klinger cold / hot compression, 25 MPa	thickness decrease at 23 [°C]: 9%
		thickness decrease at 250 [°C]: 38%

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 including 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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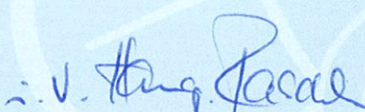
Type Approval Symbol

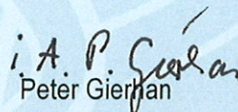


File No. II.C.09

Hamburg, 2008-11-20

Germanischer Lloyd


Hanspeter Raschle


Peter Gierman

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-chem-2005
Density	2.0 [g/cm ³]
Compressibility	7% { ASTM F 36 J }
Recovery	=/ > 35% { ASTM F 36 J }
Tightness	0.2 [ml/min] { DIN 3535-6 }
Klinger cold / hot compression, 50MPa	thickness decrease at 23 [°C]: 10% thickness decrease at 250 [°C]: 30%

Type	KLINGERTop-chem-2006
Density	2.9 [g/cm ³]
Compressibility	4% { ASTM F 36 J }
Recovery	=/ > 40% { ASTM F 36 J }
Tightness	0.1 [ml/min] { DIN 3535-6 }
Klinger cold / hot compression, 50 MPa	thickness decrease at 23 [°C]: 10% thickness decrease at 250 [°C]: 40%

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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