



# Type Approval Certificate

Germanischer Lloyd

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. 98 953 - 97 HH

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

Product Description FLAT GASKETS

Type KLINGERSIL C-4430 / 4433 / 4409 / 44XL

Environmental Category None

Technical Data / TECHNICAL DATA (continued)

Range of Application

Type	KLINGERSIL C-4430
Density	1.75 [g/cm <sup>3</sup> ]
Compressibility	9% { ASTM F 36 J }
Recovery	=/ > 50% { ASTM F 36 J }
Tightness	<1.0 [ml/min] { DIN 3535-6 }
Soluble chloride content	150 [ppm]
Klinger cold / hot compression, 50 MPa	thicknees decrease at 23 [°C]: 8% thicknees decrease at 300 [°C]: 11%

## 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 2008-11-20

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File No. II.C.09

Hamburg, 2003-11-21

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G. Hölzer

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## TECHNICAL DATA

Type	KLINGERSIL C-4433
Density	1.8 [g/cm <sup>3</sup> ]
Compressibility	7% { ASTM F 36 J }
Recovery	=/> 60% { ASTM F 36 J }
Tightness	0.2 [ml/min] { DIN 3535-6 }
Soluble chloride content	150 [ppm]
Klinger cold / hot compression, 50 MPa	thicknees decrease at 23 [°C]: 7% thicknees decrease at 300 [°C]: 8%

Type	KLINGERSIL C-4409
Density	2.0 [g/cm <sup>3</sup> ]
Compressibility	7% { ASTM F 36 J }
Recovery	=/> 50% { ASTM F 36 J }
Tightness	0.2 [ml/min] { DIN 3535-6 }
Soluble chloride content	150 [ppm]
Klinger cold / hot compression, 50 MPa	thicknees decrease at 23 [°C]: 10% thicknees decrease at 300 [°C]: 10%

Type	KLINGERSIL C-44XL
Density	1.6 [g/cm <sup>3</sup> ]
Compressibility	10% { ASTM F 36 J }
Recovery	=/> 55% { ASTM F 36 J }
Klinger cold / hot compression, 50 MPa	thicknees decrease at 23 [°C]: 12% thicknees decrease at 300 [°C]: 19%

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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