

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. 98 953 - 97 HH

Company Rich. Klinger Dichtungstechnik GmbH & Co. KG

Am Kanal 8-10
2352 Gumpoldskirchen, AUSTRIA

Product FLAT GASKETS - ASBESTOS FREE

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

Technical Data /
Application

TECHNICAL DATA (continued)

Type	KLINGERSIL C-4430
Density	1.75 [g/cm ³]
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	thickness decrease at 23 [°C]: 8% thickness 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.

Approval Standard • ASTM and DIN

Documents • Test Reports
• Technical Data
• Audit Report

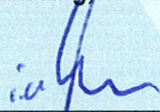
Remarks • TECHNICAL DATA, PRODUCTION PLACES and REMARKS / LIMITATIONS
see page 2.

Valid until 2018-11-20

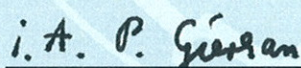
File No. XI.B.03

Germanischer Lloyd

Hamburg, 2014-01-08



Olaf Drews



Peter Gierhan

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TECHNICAL DATA

Type KLINGERSIL C-4433
Density 1.8 [g/cm³]
Compressibility 7% { ASTM F 36 J }
Recovery \geq 60% { ASTM F 36 J }
Tightness 0.2 [ml/min] { DIN 3535-6 }
Soluble chloride content 150 [ppm]
Klinger cold / hot compression, 50 MPa thickness decrease at 23 [°C]: 7%
thickness decrease at 300 [°C]: 8%

Type KLINGERSIL C-4409
Density 2.0 [g/cm³]
Compressibility 7% { ASTM F 36 J }
Recovery \geq 50% { ASTM F 36 J }
Soluble chloride content 150 [ppm]
Klinger cold / hot compression, 50 MPa thickness decrease at 23 [°C]: 10%
thickness decrease at 300 [°C]: 10%

Type KLINGERSIL C-44XL
Density 1.6 [g/cm³]
Compressibility 10% { ASTM F 36 J }
Recovery \geq 55% { ASTM F 36 J }
Klinger cold / hot compression, 50 MPa thickness decrease at 23 [°C]: 12%
thickness decrease at 300 [°C]: 19%

PRODUCTION PLACES

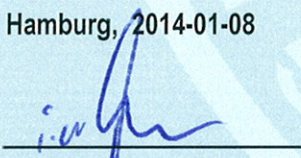
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AUSTRIA


REMARKS / LIMITATIONS

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

Germanischer Lloyd

Hamburg, 2014-01-08


Olaf Drews


Peter Gierhan