

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. 98 950 - 97 HH

Company Rich. Klinger Dichtungstechnik GmbH & Co. KG

Am Kanal 8-10
2352 Gumpoldskirchen, AUSTRIA

Product FLAT GASKETS - ASBESTOS FREE

Type KLINGERTop-chem-2003 / 2005 / 2006

Technical Data /
Application

TECHNICAL DATA (continued)

Type	KLINGERTop-chem-2003
Density	1.7 [g/cm ³]
Compressibility	16% { ASTM F 36 J }
Recovery	=/≥ 35% { 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.

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	KLINGERTop-chem-2005
Density	2.2 [g/cm ³]
Compressibility	3% { ASTM F 36 J }
Recovery	=/ > 40% { 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%

PRODUCTION PLACES

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

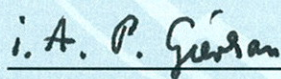
REMARKS / LIMITATIONS

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