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.	**98 951 - 97 HH**
Company	**Rich. Klinger Dichtungstechnik GmbH & Co. KG** **Am Kanal 8-10** **2352 Gumpoldskirchen, AUSTRIA**
Product	**FLAT GASKETS - ASBESTOS FREE**
Type	**KLINGERSIL C-4300 / 4243 / 4324 / 4400**

Technical Data / Application

TECHNICAL DATA (continued)

Type	**KLINGERSIL C-4300**
Density	**1.6 [g/cm³]**
Compressibility	**14% { 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	**thickness decrease at 23 [°C]: 10%** **thickness decrease at 300 [°C]: 25%**

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 / propylen 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

i.V.
Olaf Drews

i. A. P. Gierhan
Peter Gierhan

Approval Certificate

Certificate No. **98 951 - 97 HH**

TECHNICAL DATA

Type	KLINGERSIL C-4243
Density	1.75 [g/cm³]
Compressibility	8% { ASTM F 36 A}
Recovery	=/> 55% { ASTM F 36 A }
Tightness	0.4 [ml/min] { DIN 3535-6 }
Klinger cold / hot compression, 50 MPa	thickness decrease at 23 [°C]: 10% thickness decrease at 200 [°C]: 25%

Type	KLINGERSIL C-4324
Density	1.85 [g/cm³]
Compressibility	10% { ASTM F 36 J }
Recovery	=/> 55% { ASTM F 36 J }
Tightness	0.4 [ml/min] { DIN 3535-6 }
Klinger cold / hot compression, 50 MPa	thickness decrease at 23 [°C]: 10% thickness decrease at 300 [°C]: 25%

Type	KLINGERSIL C-4400
Density	1.6 [g/cm³]
Compressibility	11% { ASTM F 36 J }
Recovery	=/> 55% { 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]: 10% thickness decrease at 300 [°C]: 22%

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

i.V. _____ i.A. P. Gierhan

Olaf Drews Peter Gierhan