



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. 98 951 - 97 HH

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

Product Description FLAT GASKETS

Type KLINGERSIL C-4300 / 4243 / 4324 / 4400

Environmental Category None

Technical Data / TECHNICAL DATA (continued)

| | | |
|----------------------|----------------------------------------|---------------------------------------------------------------------------|
| Range of Application | Type | KLINGERSIL C-4300 |
| | Density | 1.6 [g/cm ³] |
| | 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 | thicknees decrease at 23 [°C]: 10% thicknees 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.

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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TECHNICAL DATA

| | |
|----------------------------------------|-------------------------------------|
| Type | KLINGERSIL C-4243 |
| Density | 1.75 [g/cm ³] |
| Compressibility | 8% { ASTM F 36 A } |
| Recovery | =/> 55% { ASTM F 36 A } |
| Tightness | 0.4 [ml/min] { DIN 3535-6 } |
| Tightness | 0.04 [mg/sm] { DIN 28090-2 } |
| Klinger cold / hot compression, 50 MPa | thicknees decrease at 23 [°C]: 10% |
| | thicknees decrease at 200 [°C]: 25% |

| | |
|----------------------------------------|-------------------------------------|
| Type | KLINGERSIL C-4324 |
| Density | 1.85 [g/cm ³] |
| Compressibility | 10% { ASTM F 36 J } |
| Recovery | =/> 55% { ASTM F 36 J } |
| Tightness | 0.4 [ml/min] { DIN 3535-4 } |
| Klinger cold / hot compression, 50 MPa | thicknees decrease at 23 [°C]: 10% |
| | thicknees decrease at 300 [°C]: 25% |

| | |
|----------------------------------------|-------------------------------------|
| Type | KLINGERSIL C-4400 |
| Density | 1.6 [g/cm ³] |
| 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 | thicknees decrease at 23 [°C]: 10% |
| | thicknees decrease at 300 [°C]: 22% |

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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