



Germanischer Lloyd

Type Approval Certificate

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.	98 950 - 97 HH		
Company	Rich. Klinger Dichtungstechnik GmbH & Co. KG Am Kanal 8-10 A-2352 Gumpoldskirchen		
Product Description	FLAT GASKETS		
Type	KLINGERTop-chem-2003 / 2005 / 2006		
Environmental Category	None		
Technical Data / Range of Application	<div>TECHNICAL DATA (continued)</div> <div><div>Type</div><div>Density</div><div>Compressibility</div><div>Recovery</div><div>Tightness</div><div>Klinger cold / hot compression, 25 MPa</div></div> <div>KLINGERTop-chem-2003 1.7 [g/cm³] 18% { ASTM F 36 J } => 40% { ASTM F 36 J } 0.1 [ml/min] { DIN 3535-6 } thickness decrease at 23 [°C]: 9% thickness decrease at 250 [°C]: 38%</div>		
	<div>RANGE OF APPLICATION</div> <div>The gaskets may be used under consideration of the mechanical and physical properties as well as the chemical resistance as follows:</div> <div><ul style="list-style-type: none">• 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.</div>		
Test Standard	<ul style="list-style-type: none">• ASTM and DIN		
Documents	<ul style="list-style-type: none">• Test Reports• Technical Data• Audit Report		
Remarks	<ul style="list-style-type: none">• None		
Valid until	2008-11-20		
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File No.	II.C.09		
Hamburg,	2004-10-28		

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TECHNICAL DATA

Type	KLINGERtop-chem-2005
Density	2.0 [g/cm ³]
Compressibility	7% { ASTM F 36 J }
Recovery	=/> 35% { ASTM F 36 J }
Tightness	0.2 [ml/min] { DIN 3535-6 }
Klinger cold / hot compression, 50MPa	thicknees decrease at 23 [°C]: 10% thicknees 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	thicknees decrease at 23 [°C]: 10% thicknees decrease at 250 [°C]: 40%

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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