

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. 20 778 - 04 HH

Company TEMAC a.s.
Nymburska 53
28913 Zverinek, CZECH REPUBLIC

Product Description FLAT GASKETS - NON ASBESTOS

Type TEMAFAST, TEMAFAST ECONOMY, TEMASIL, TEMAPLUS, TEMAFLEX

Environmental Category None

Technical Data / TECHNICAL DATA (continued)

Range of Application	Type	TEMAFAST
	Density	1.6-1.9 [g/cm ³] { DIN 28090-2 }
	Compressibility	10%-25% { ASTM F 36 J }
	Recovery	=/ > 50% { ASTM F 36 J }
	Gas leakage	<0.1 [mg/(sxm)] { DIN 3535-6/1999 }
	Thickness increase	ASTM F 146
	IRM 903 Oil 5h/150°C	<5 [%]
	ASTM Fuel B 5h/23°C	<10 [%]

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.

Test Standard • ASTM, DIN and other recognized test standards

Documents • Test Reports
• Technical Data
• Audit Report

Remarks None

Valid until 2014-07-22

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Type Approval Symbol



File No. II.C.09

Hamburg, 2009-06-15

Germanischer Lloyd

Hanspeter Raschle
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Peter Gierhan
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TECHNICAL DATA (continued)

Type	TEMAFAST ECONOMY
Density	1.6-1.9 [g/cm ³] { DIN 28090-2 }
Compressibility	5%-15% { ASTM F 36 J }
Recovery	=/> 50% { ASTM F 36 J }
Gas leakage	<0.1 [mg/(sxm)] { DIN 3535-6/1999 }
Thickness increase	ASTM F 146
IRM 903 Oil 5h/150°C	<10 [%]
ASTM Fuel B 5h/23°C	<15 [%]

Type	TEMASIL
Density	1.7-2.0 [g/cm ³] { DIN 28090-2 }
Compressibility	5%-15% { ASTM F 36 J }
Recovery	=/> 50% { ASTM F 36 J }
Gas leakage	<0.04 [mg/(sxm)] { DIN 3535-6/1999 }
Thickness increase	ASTM F 146
IRM 903 Oil 5h/150°C	<4 [%]
ASTM Fuel B 5h/23°C	<5 [%]

Type	TEMAPLUS
Density	1.6-1.9 [g/cm ³] { DIN 28090-2 }
Compressibility	5%-15% { ASTM F 36 J }
Recovery	=/> 50% { ASTM F 36 J }
Gas leakage	<0.03 [mg/(sxm)] { DIN 3535-6/1999 }
Thickness increase	ASTM F 146
IRM 903 Oil 5h/150°C	<3 [%]
ASTM Fuel B 5h/23°C	<5 [%]

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TECHNICAL DATA

Type TEMAFLEX
Density 1.7-2.1 [g/cm³] { DIN 28090-2 }
Compressibility 5%-15% { ASTM F 36 J }
Recovery => 45% { ASTM F 36 J }
Gas leakage <0.07 [mg/(s*xm)] { DIN 3535-6/1999 }
Thickness increase ASTM F 146
IRM 903 Oil 5h/150°C <5 [%]
ASTM Fuel B 5h/23°C <5 [%]

Type TEMASIL NG
Density 1,7-2,0 [g/cm³] { DIN 28090-2 }
Compressibility 5-15% - acc. to ASTM F36-J
Recovery => 50% - acc. to ASTM F36-J
Gas leakage <0,06 [mg/(s*m)] { DIN 3535-6/1999 }
Thickness increase ASTM F 146
IRM 903 Oil 5h/150°C <3%
ASTM Fuel B 5h/23°C <5%

Type TEMASIL HT
Density 1,7-2,0 [g/cm³] { DIN 28090-2 }
Compressibility 5-15% - acc. to ASTM F36-J
Recovery => 55% - acc. to ASTM F36-J
Gas leakage <0,04 [mg/(s*m)] { DIN 3535-6/1999 }
Thickness increase ASTM F 146
IRM 903 Oil 5h/150°C <3%
ASTM Fuel B 5h/23°C <5%

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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This certificate is issued on the basis of "Guidelines for the Performance of Type Approvals Part 1, Procedure".