

APPROVAL CERTIFICATE

This is to certify, that the undernoted products have been approved in accordance with the relevant requirements of the DNV GL Approval System.

Certificate No. **20 778 - 04 HH**

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

Product **FLAT GASKETS - NON ASBESTOS**

Type **TEMAFAST, TEMAFAST ECONOMY, TEMASIL, TEMAPLUS, TEMAFLEX, TEMASIL NG and TEMASIL HT**

Technical Data / Application

TECHNICAL DATA (continued)

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/(s·cm)] { DIN 3535-6 }
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.

Approval Standard • ASTM, DIN, Solas 74 as amended - Chapter II-1 - Reg.3.5.2 - asbestos free compliance.

Documents • ISO 9001:2009, Cert. Registration-No.: 07.257.772, TÜV SÜD, dated: 2014-07-24
 • ISO 14001:2005, Cert. Registration-No.: 07.257.968, TÜV SÜD, dated: 2014-07-24
 • DVGW Type Examination Cert., NG-No. 5123BT0379, dated: 2010-02-10
 • Audit Report No.: 43939 PRG, dated: 2014-07-14
 • DNVGL-Ref.-No.: 14-074469

Remarks • PRODUCTION PLANTS and TECHNICAL DATA see page 2 + 3.

Valid until **2019-07-22**

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File No. **XI.B.03**

Hamburg, 2014-10-27

DNV GL

www.dnvgl.com


 Olaf Drews


 Peter Gierhan

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PRODUCTION PLANTS: TEMAC, a.s.
Nymburska 53
289 13 Zverinek
Czech Republic

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 }
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 }
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 }
Thickness increase	ASTM F 146
IRM 903 Oil 5h/150°C	<3 [%]
ASTM Fuel B 5h/23°C	<5 [%]
Type	TEMAFLEX
Density	1.7-2.1 [g/cm ³] { DIN 28090-2 }
Compressibility	5%-15% { ASTM F 36 J }
Recovery	=/> 45% { ASTM F 36 J }
Gas leakage	<0.07 [mg/(sxm)] { DIN 3535-6 }
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/cm ³] { DIN 28090-2 }
Compressibility	5%-15% { ASTM F 36 J }
Recovery	=/> 50% { ASTM F 36 J }
Gas leakage	<0.06 [mg/(sxm)] { DIN 3535-6 }
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	TEMASIL HT
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/(s·cm)] { DIN 3535-6 }
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 according with the instructions of the manufacturer.

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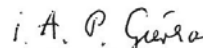
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Hamburg, 2014-10-27

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