

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. 12 883 - 11 HH

Company Gambit Lubawka Sp. z o.o.

Wojska Polskiego 16
58-420 Lubawka, POLAND

Product FLAT GASKETS - NON ASBESTOS

Type GAMBIT AF-200 UNIVERSAL / GAMBIT AF-OIL / GAMBIT AF-1000

Technical Data /
Application

TECHNICAL DATA

Type	AF-200 UNIVERSAL
Density +/- 5%	2 [g/cm ³] PN-79/M-11029.01
Tensile resistance cross fiber min.	7 [MPa] PN-79/M-11029.02
Compressibility at 35 Mpa/20°C	5-15 [%] PN-79/M-11029.05
Elastic recovery-minium/20°C	40 [%] PN-79/M-11029.05
Endurance on compressing	90 [MPa] DIN-28091-2
Resistance to internal oil pressure at room temperature (outer pressure 35 Mpa)	15 [MPa] PN-79/M-11029.06
Thickness increase of material:	
- in distilled water, max.	2 [%] PN-79/M-11029.08
- in model oil No. 3 (150°C after 5h) max.	12 [%] PN-79/M-11029.08
- in model fuel B (20°C after 5h) max.	9 [%] PN-79/M-11029.08
Colour	Red
Standard thickness	0,3 [mm] up to 6,0 [mm]

to be continued on page 2

Approval Standard • DIN 3535, ASTM F36, DIN 52910, DIN 86076

Documents • Test Reports
• Technical Data
• Audit Report

Remarks • TECHNICAL DATA (GAMBIT AF-OIL and GAMBIT AF-1000) see page 2.
RANGE OF APPLICATION see page 2.

Valid until 2015-12-18

File No. XI.B.03

Germanischer Lloyd

Hamburg, 2011-01-13

Hanspeter Raschle *Peter Gierhan*

Hanspeter Raschle

Peter Gierhan

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TECHNICAL DATA

Type	AF-OIL
Density +/- 5%	2 [g/cm ³] PN-79/M-11029.01
Tensile resistance cross fiber min.	9 [MPa] PN-79/M-11029.02
Compressibility at 35 Mpa/20°C	6-15 [%] PN-79/M-11029.05
Elastic recovery-minium/20°C	40 [%] PN-79/M-11029.05
Endurance on compressing	100 [MPa] DIN-28091-2
Resistance to internal oil pressure at room temperature (outer pressure 35 Mpa)	17 [MPa] PN-79/M-11029.06
Thickness increase of material:	
- in distilled water, max.	2 [%] PN-79/M-11029.08
- in model oil No. 3 (150°C after 5h) max.	6 [%] PN-79/M-11029.08
- in model fuel B (20°C after 5h) max.	6 [%] PN-79/M-11029.08
- after kerosene application at 20 °C and 24h	5 [%] PN-79/M-11029.08
Colour	Green
Standard thickness	0,3 [mm] up to 6,0 [mm]

Type	AF-1000
Density +/- 5%	2,45 - 2,5 [g/cm ³] PN-79/M-11029.01
Compressibility at 35 Mpa/20°C	5-15 [%] PN-79/M-11029.05
Elastic recovery-minium/20°C	40 [%] PN-79/M-11029.05
Endurance on compressing	120 [MPa] DIN-28091-2
Thickness increase of material:	
- in distilled water, max.	2 [%] PN-79/M-11029.08
- in model oil No. 3 (150°C after 5h) max.	8 [%] PN-79/M-11029.08
- in model fuel B (20°C after 5h) max.	7 [%] PN-79/M-11029.08
- in oil at 20 °C after 24h	6 [%] PN-79/M-11029.08
Colour	Graphite
Standard thickness	0,7 [mm] up to 6,0 [mm]

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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.

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, 2011-01-13

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