

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.	11 581 - 14 HH
Company	FMI S.p.A. Via Taranto 10/12 25036 Palazzolo Sull' Oglio, ITALY
Product	Graphite based gasket sheet material
Type	UNIMETAL
Technical Data / Application	<p>UNIMETAL is a graphite based, wire mesh reinforced gasket sheet material with polymer coating both sides.</p> <p>Appearance: black color, sheet size 1500 x 1500 mm Thickness: 0,5 up to 3 mm Density (ASTM F 1315): 0,9 up to 1,1 [g/cm³] Compressibility (DIN 3535-6): 40 up to 50 [%] Recovery (DIN 3535-6): 3 up to 7 [%] Gas Permeability/specific leakage (DIN 3535-6): less than 0,1 [mg s⁻¹ m⁻¹] NOTE 1: The specified data are for gaskets of 1.5 mm thickness.</p> <p>Temperature: max.+650 [°C] (inert or reducing media), max.+450 [°C] (oxidizing media) min. -200 [°C] Pressure: max. 150 [bar] NOTE 2: The recommended temperatures and pressures applicable for different gasket thicknesses are to be according manufacturer's instructions.</p> <p>RANGE 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.</p>
Approval Standard	DIN 3535-6, ASTM F1315, SOLAS 74 as amended – Chapter II-1-Reg.3.5.2 – asbestos free compliance.
Documents	Inspection Certificate (EN 10204-3.2) no. 140004 dated 2014-09-12; FMI - Laboratory Test Reports no. 619, 620, 608; Test Report no. 14LA02747 (MADE/HSE) dd. 2014-03-24 (asbestos-free); Initial Survey and Audit Report (GL Genoa) dd. 2014-10-06; Technical Data Sheet (FMI) – Unimetal - (Sept. 2014); Declaration of asbestos-free content dd. 2014-06-12; EN ISO 9001:2008 cert. (TÜV Nord) no. 44100110614.
Remarks	The selection of the gaskets for the corresponding application and the correct installation are to be in accordance with the instructions of the manufacturer.
Valid until	2019-10-21
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File No.	XI.B.03
	Hamburg, 2014-10-22