

# 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.	<b>11 580 - 14 HH</b>
Company	<b>FMI S.p.A.</b>  <b>Via Taranto 10/12</b> <b>25036 Palazzolo Sull' Oglio, ITALY</b>
Product	<b>Graphite gasket sheet material</b>
Type	<b>Flexigraf FGS3</b>
Technical Data / Application	<p><b>Flexigraf FGS3 is a foil (with more than 99% graphite) reinforced by tanged stainless steel core (AISI 316L grade) with 0,1mm thickness.</b></p> <p><b>Appearance:</b> grey color, sheet size 1500 x 1500 mm</p> <p><b>Thickness:</b> 0,5 up to 3 mm</p> <p><b>Density (ASTM F 1315):</b> 1,5 [g/cm<sup>3</sup>]</p> <p><b>Compressibility (DIN 3535-6):</b> 30 – 45 [%]</p> <p><b>Recovery (DIN 3535-6):</b> 3 – 7 [%]</p> <p><b>Creep relaxation (DIN 3535-6):</b> less than or equal to 5 [%]</p> <p><b>Gas Permeability/specific leakage (DIN 3535-6):</b> less than 0,1 [mg s<sup>-1</sup> m<sup>-1</sup>]</p> <p><b>NOTE 1: The specified data are for gaskets of 1.5 mm thickness.</b></p> <p><b>Temperature:</b> max.+700 [°C] (inert or reducing media), max.+550 [°C] (oxidizing media) min. -200 [°C]</p> <p><b>Pressure:</b> max. 200 [bar]</p> <p><b>NOTE 2: The recommended temperatures and pressures applicable for different gasket thicknesses are to be according manufacturer's instructions.</b></p> <p><b>RANGE APPLICATION:</b></p> <p>The gaskets may be used under consideration of the mechanical and physical properties as well as the chemical resistance as follows:</p> <ul style="list-style-type: none"> <li>- Ship's piping systems excluding cargo lines on Chemical and Gas Tankers carrying propylene oxide and mixtures of ethylene / propylene oxide.</li> <li>- Maximum allowable working pressure and temperature according to the specification of the manufacturer.</li> </ul>
Approval Standard	<b>DIN 3535-6, ASTM F1315, SOLAS 74 as amended – Chapter II-1-Reg.3.5.2 – asbestos free compliance.</b>
Documents	<p><b>Inspection Certificate (EN 10204-3.2) no. 140006 dated 2014-09-12;</b></p> <p><b>FMI - Laboratory Test Reports no. 574, 592;</b></p> <p><b>Test Report no. 14LA02746 (MADE/HSE) dd. 2014-03-24 (asbestos-free);</b></p> <p><b>Fire test report (API 6FB) dd.2010-12-31 (Yarmouth Res. And Technology);</b></p> <p><b>DIN-DVGW type examination certificate NG-5124BU0235 dd. 2009-07-06;</b></p> <p><b>Initial Survey and Audit Report (GL Genoa) dd. 2014-10-06;</b></p> <p><b>Technical Data Sheet (FMI) – Flexigraf FGS3 - (Sept. 2014);</b></p> <p><b>Declaration of asbestos-free content dd. 2014-06-12;</b></p> <p><b>EN ISO 9001:2008 cert. (TÜV Nord) no. 44100110614.</b></p>
Remarks	<b>The selection of the gaskets for the corresponding application and the correct installation are to be in accordance with the instructions of the manufacturer.</b>
Valid until	<b>2019-10-21</b>
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File No.	<b>XI.B.03</b>
	<b>Hamburg, 2014-10-22</b>