

# 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>11 582 - 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>Flat gasket material</b>
Type	<b>SICHEM S11</b>
Technical Data / Application	<p><b>SICHEM S11 is a sheet sealing material with biaxial oriented PTFE and silica filler.</b></p> <p><b>Appearance:</b> pink color  <b>Thickness:</b> 0,75 up to 6 mm  <b>Density (ASTM F 1315):</b> 2,2 [g/cm<sup>3</sup>]  <b>Compressibility (DIN 3535-6):</b> more than 4 [%]  <b>Recovery (DIN 3535-6):</b> more than 1,7 [%]  <b>Gas Permeability/specific leakage(DIN 3535-6):</b> less than 0,05 [mg s<sup>-1</sup> m<sup>-1</sup>]  <b>Creep Relaxation (DIN 3535-6):</b> less than 24 [%]  <b>NOTE 1: The specified data are for gaskets of 2 mm thickness.</b>  <b>Temperature: max.+260 [°C]</b>  <b>min. -200 [°C]</b>  <b>Pressure: max. 85 [bar]</b></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>  <b>The gaskets may be used under consideration of the mechanical and physical properties as well as the chemical resistance as follows:</b>  - Ship's piping systems excluding cargo lines on Chemical and Gas Tankers carrying propylene oxide and mixtures of ethylene / propylene oxide.  - Not to be used with molten alkali metals, fluorine gas, hydrogen fluoride.  - Maximum allowable working pressure and temperature according to the specification of the manufacturer.</p>
Approval Standard	<b>DIN 3535-6, ASTM F1315, SOLAS 74 as amended – Chapter II-1-Reg.3.5.2 – asbestos free compliance.</b>
Documents	<b>Inspection Certificate (EN 10204-3.2) no. 140001 dated 2014-09-12;</b> <b>FMI - Laboratory Test Reports no. 906, 907, 908, 872, 873, 874;</b> <b>Test Report no. 14LA02748 (MADE/HSE) dd. 2014-03-24 (asbestos-free);</b> <b>Test Cert.(TÜV)no.9229713184/2007-05-04(leakage test-TA Luft,VDI2440)</b> <b>BAM Test report ref.no.II-2876/2010E/2011-02-11(reactivity with oxygen)</b> <b>Initial Survey and Audit Report (GL Genoa) dd. 2014-10-06;</b> <b>Technical Data Sheet (FMI) – Sichem S11 - (Sept. 2014);</b> <b>Declaration of asbestos-free content dd. 2014-06-12;</b> <b>EN ISO 9001:2008 cert. (TÜV Nord) no. 44100110614.</b>
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>