SOLAS

‘Safe Return to Port’ regulations
Background to the need for fire protection of steel pipes in ships

SOLAS regulation Chapter II-2/21.1 requires that passenger ships constructed on or after 1 July 2010 having a length of 120m or more, or having 3 or more main vertical fire zones, shall comply with design criteria for a ‘Safe Return to Port’ of the ship under its own propulsion after a fire casualty.

Section 4 of Regulation 21 lists all ‘essential systems’ which are required to ensure propulsion and manouevrability after a casualty not exceeding the ‘casualty threshold’, and also to maintain safety in all parts of the ship not affected by the casualty, as well as to ensure services needed to be available in safe areas.

IMO MSC.1/Circular 1369 provides additional guidance for the uniform implementation of SOLAS II-2 21.

Steel pipes that are part of an essential service which must remain operational in a fire, for example sprinkler system pipes, can be protected using FireMaster Marine Plus blanket for compliance with Regulation II-2/21.4 in accordance with IMO MSC.1/Circ. 1369 Interpretation 12.

IMO MSC.1/Circ 1369 Interpretation 12

“Steel pipes other than those carrying flammable liquids and passing through (not serving) spaces affected by a fire casualty may be considered to remain operational provided they are of substantial thickness (reference can be made to ICLL 66 regulation 22(3), as interpreted by IACS UI LL36/Rev. 2 paragraph (b)) or A-60 insulated (A-60 Class insulation approved in accordance with resolution A.754(18) for bulkheads or decks may be used for this purpose). In both cases the pipes should be adequately supported. In order to be considered as remaining operational after a fire casualty, steel pipes should be joined by welding otherwise mechanical joints should be tested according to IACS UR P2.1 I.5.5.6 fire test or equivalent to the satisfaction of the Administration.

Temperature increase of liquids carried may need to be considered, and measures taken where necessary, so that the performance and purpose of the affected systems can be maintained as intended after the casualty has occurred.”

1 This resolution is superseded by IMO 2010 FTP Code Part 3

FireMaster Marine Plus systems for fire protection of steel pipes in accordance with MSC.1/Circ. 1369 Interpretation 12:

<table>
<thead>
<tr>
<th>Product</th>
<th>System specification</th>
<th>Weight (kg/m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FireMaster Marine Plus blanket</td>
<td>45mm x 64kg/m² in single layer</td>
<td>2.88</td>
</tr>
<tr>
<td>FireMaster Marine Plus blanket</td>
<td>50mm x 48kg/m² in single layer</td>
<td>2.40</td>
</tr>
</tbody>
</table>
SOLAS ‘Safe Return to Port’ regulations
lightweight fire insulation for fire protection of steel pipes

Ref. Product

a  Outer facing of aluminium foil. FireMaster Marine Plus blanket is supplied with aluminium or glass cloth facing or alternatively, fully encapsulated with aluminium foil.

b  Steel tie wire to retain blanket. One wire placed approximately 50 to 75mm from each blanket edge and one at the centre of each blanket.

c  Aluminium foil tape used at joints between blankets.

d  FireMaster Marine Plus blanket 610mm wide
   Applied in one single layer with tightly butted joints:
   45mm x 64kg/m³ (2.88kg/m² weight)
   or
   50mm x 48kg/m³ (2.40kg/m² weight).

e  Steel Pipe complying with MSC.1/Circ. 1369 Interpretation 12.