Certificate No:
TAF00000052

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Class H Fire Wall and Bulkhead

with type designation(s)
Chartek 7E - Bulkhead

Issued to
International Paint Limited
GATESHEAD TYNE AND WEAR, United Kingdom

is found to comply with
DNV GL offshore standards

Application :

Approved for use as fire retarding bulkhead of class H-0, H-60 and H-120.

This Certificate is valid until **2020-12-15**.

Issued at **Høvik** on **2015-12-16**

for **DNV GL**

DNV GL local station: **Newcastle-upon-Tyne**

Approval Engineer: **Helge Bjørnarå**

Petter Langnes
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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Product description

Chartek 7E - Bulkhead
System is composed of a structural steel bulkhead insulated on the fire exposed side. The insulation is composed by a two component epoxy based primer covered by an intumescent coating.

Table 1: H-bulkhead rating and corresponding thickness of Chartek 7E:

Rating	DFT [mm]	Comment
H-0	4.2	No temperature limit
H-0_{400}	8.2	Max temperature rise of 400 ºC (single) after 120 min
H-60	9.6	Max temperature rise of 140 ºC / 180 ºC (avg. / single) after 60 min
H-120	16.0	Max temperature rise of 140 ºC / 180 ºC (avg. / single) after 120 min

The materials are manufactured at the following locations:

- Akzo Nobel Coatings BV, Wapenveld, The Netherlands
- International Paint LLC, Houston, Texas, USA
- International Paint (Korea) Ltd., Haman, Korea

Application/Limitation

Approved for use as fire retarding bulkhead of class H-0, H-0_{400}, H-60 and H-120.

Restricted application: Fire against insulated side.

The protective coating is not defined as non-combustible and should not be used in accommodation or in enclosed areas.

Relative density of Chartek 7E is 1.0 g/cm^3.

The application of the protective coating is to be performed in accordance with the manufacturer's application manual. Alternative primers and topcoats may be used provided they have been tested and approved by the manufacture.

Each product is to be supplied with its manual for application and maintenance.

Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, October 2015.

Doc. No. Ch7Ewp_uk, Rev. 0, Chartek 7E - Application Manual dated 2015-08-07 from manufacturer.

Test report No. P100228-1013, issue 1 dated 2015-11-30 from BRE Global, Watford, UK
Test report No. 301711, issue 1 dated 2015-07-15 from BRE Global, Watford, UK
Survey report No. NWC 1500017/19 dated 3 December 2015 from LR

Tests carried out

Tested according to IMO 2010 FTP Code Part 3 with furnace temperature following the hydrocarbon curve according to ISO 834-3.

Marking of product

The product or packing is to be marked with name of manufacturer and type designation.

Periodical assessment

DNV GL's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Class Programme DNVGL-CP-0338, Section 4.