

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Fire Seal**

with type designation(s)
Firestop Flexible Sealing

Issued to

Trelleborg Offshore Norway AS.
KROKSTADELVA, Norway

is found to comply with
DNV GL offshore standards

Application :

Approved for use as fire skirt expansion joint/seal in H-0 and H-60 class divisions.

Issued at **Høvik** on **2018-04-05**

This Certificate is valid until **2023-04-04**.

DNV GL local station: **Oslo Maritime and CAP**

for **DNV GL**

Approval Engineer: **Helge Bjørnarå**

Mårten Schei-Nilsson
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.



Job Id: **262.1-007891-13**
Certificate No: **TAF00000VB**

Product description

"Firestop Flexible Sealing"

Flexible joint sealing composed of layers of elastomer bolted to the division.

Application/Limitation

Approved for use as fire skirt expansion joint/seal in H-0 and H-60 class divisions.

15 mm seals fitted on un-exposed side: seals in accordance to dwg. No. KRO-001951/001952/001953 (H-0)

30 mm seals fitted on either side: flat seal (H-60), omega seal (H-60), escape tunnel seal (H-60) and drain gully seal (H-0)

The seals are to be partially insulated (insulation to cover the bolted connection between the seal and division) on exposed side according to division rating.

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

Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, October 2017.

Test Report No. 846000.16/96.094 dated 29 April 1996 from SINTEF, Trondheim, Norway
Assessment Report No. 846060.10/96.339 dated 28 August 1996 from SINTEF, Trondheim, Norway
Test Report No. 150072-04T8, version 1, dated 29 March 2017 from SP, Trondheim, Norway
Test Report No. 150072-04T9, version 1, dated 31 August 2017 from RISE, Trondheim, Norway

General arrangement:

Drawing No. KRO-001651, issue 01, dated 28 February 2018 from manufacturer
Drawing No. KRO-001652, issue 01, dated 28 February 2018 from manufacturer
Drawing No. KRO-001653, issue 01, dated 28 February 2018 from manufacturer
Drawing No. KRO-001609, issue 3, dated 9 March 2017 from manufacturer

Product description:

Drawing No. 4.76-5108 (KRO-000536), issue 3, dated 6 June 2013 from manufacturer

Tests carried out

Tested in accordance with IMO FTP Code (IMO Res. A.754(19)) and 2010 FTP Code Part 3 with the hydrocarbon time-temperature curve specified in EN 1363-2.

Marking of product

The product or packing is to be marked with name of manufacturer, type designation and fire-technical rating.

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.