Certificate No:
TAF00001TG

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Jet Fire Protection

with type designation(s)
ContraFlame® C20

Issued to
Advanced Innergy Ltd.
Gloucester, **United Kingdom**

is found to comply with
DNV offshore standards

Application :

Approved for use as jet fire protection of steel pipes.

Issued at **Høvik** on **2023-05-10**
This Certificate is valid until **2028-05-09**.
DNV local unit: **Southampton**

for **DNV**

Approval Engineer: **Kristin Grønnæss Hovden**

Jowita Permoda
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.

Product description

"ContraFlame® C20"
A steel pipe, OD 219.1 mm and 12.7 mm wall thickness, insulated with the ContraFlame C20 system. The steel pipe is painted with "Intertherm 228" paint system.

The ContraFlame C20 system is composed of a pumpable syntactic silicone material, which includes glass and fire retardant additives, and a double layered stainless steel reinforcing mesh system. The syntactic material is moulded around both the pipe and the stainless steel mesh. The stainless steel mesh is formed by a combination of expanded and woven grades at 0.7 mm and 0.6 mm. The stainless steel mesh is installed 3 mm inboard from the perimeter.

The total insulation system thickness is 40 mm (+2/-0 mm).

For further details see drawing mentioned under Type Approval documentation.

The product may be manufactured at the following location:
- Advanced Innergy Ltd., Gloucester, UK.

Application/Limitation

Approved for use as a jet fire pipe of rating:
(Type of fire/Type of application/Critical temperature rise (°C)/Period of resistance (minutes)): JF/pipes/270/120.

Any project specific design solutions arrived at on basis of this certificate are to be further validated by project specific approvals carried out by the appointed verifying authority for each project in each case at the detail engineering stage.

The approval refers only to the fire resistance properties of the system.

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

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

Type Approval documentation

Certification in accordance with Class Programme DNV-CP-0338, September 2021.

Test report No. PE02675 dated 18 June 2014 from Health & Safety Laboratory, Buxton, UK.

Drawing No. CER 066 – 002 Rev. 1 dated 12 August 2014 from Advanced Insulation Systems.

Tests carried out

Tested according to ISO 22899-1:2007.

Marking of product

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

Periodical assessment

DNV'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 DNV-CP-0338 Section 4.