



EUROPEAN UNION RECOGNISED ORGANISATION (EU RO) MUTUAL RECOGNITION TYPE APPROVAL CERTIFICATE

Certificate No:
MRE000001U

In accordance with Article 10.1 of EU Regulation 391/2009

This Certificate is issued to

Øglænd System AS
KLEPPE, Norway

for

Cable trays and ducts (Glass Reinforced Plastic (GRP))

with type designation(s)

EngiFibre GRP Cable Trays FE50, FTE80

The product is found to comply with

EU RO Mutual Recognition Technical Requirements for Cable trays and ducts (Glass Reinforced Plastic (GRP))

Intended service

Cable trays and ducts for use onboard ship and offshore platforms.

This is to certify:

that the Product referred to herein has been inspected for the Manufacturer, pursuant to the relevant requirements of the European Union Recognised Organisation Mutual Recognition procedure, required by Article 10.1 of EU Regulation 391/2009, and has been found in accordance with those requirements.

This Certificate is valid until **2030-11-25**.

Issued at **Høvik** on **2025-11-26**

DNV local unit: **West Norway CMC**

for **DNV**

Approval Engineer: **Qiang William Guo**

.....
Frederik Tore Elter
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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

Product description

EngiFibre® Glass Fibre Reinforced Cable ladder system, manufactured in Class 1 Polyester and Polyester with anti-static properties (C1A). Complying with IACS Rec 73, DNV-CP-0593.

Classification according to IEC 61537:

System type	Classification	Description	Note
FTE	6.1.2	Non-metallic system component	With FRP accessories
FTE	6.1.3	Composite system component	With SS accessories
FTE	6.2.2	Non-flame propagating system component	Non-flame propagating system component
FTE	6.3.1	Cable tray system or cable ladder system without electrical continuity characteristics	Cable tray system or cable ladder system without electrical continuity characteristics
FTE	6.4.2	Electrically non-conductive system component	Electrically non-conductive system component
FTE	6.5.3.3	Corrosion resistance for Internal fixing devices in SS option	Class III
FTE	6.6.1	Minimum temperature	- 20°C
FTE	6.6.2	Maximum temperature	+85°C
FTE	6.7	Perforation base area classification	Class A
FTE 50	6.9.4	System component offering impact resistance of 20 J	20J
FTE 80	6.9.4	System component offering impact resistance of 20 J	20J

FTE50 Cable tray system with rail height 50mm:

Type designation Width (mm) Height (mm) Length (mm)

Description	Width (mm)	Height (mm)	Length (mm)
Cable tray FTE50 CT-50-3000 FRP	50	50	3000
Cable tray FTE50 CT-100-3000 FRP	100	50	3000
Cable tray FTE50 CT-150-3000 FRP	150	50	3000
Cable tray FTE50 CT-200-3000 FRP	200	50	3000
Cable tray FTE50 CT-300-3000 FRP	300	50	3000
Cable tray FTE50 CT-400-3000 FRP	400	50	3000
Cable tray FTE50 CT-600-3000 FRP	600	50	3000

FTE80 Cable tray system with rail height 50mm:

Type designation Width (mm) Height (mm) Length (mm)

Description	Width (mm)	Height (mm)	Length (mm)
Cable tray FTE80 CT-50-3000 FRP	50	80	3000
Cable tray FTE80 CT-100-3000 FRP	100	80	3000

Cable tray FTE80 CT-150-3000 FRP	150	80	3000
Cable tray FTE80 CT-200-3000 FRP	200	80	3000
Cable tray FTE80 CT-300-3000 FRP	300	80	3000
Cable tray FTE80 CT-400-3000 FRP	400	80	3000
Cable tray FTE80 CT-500-3000 FRP	500	80	3000
Cable tray FTE80 CT-600-3000 FRP	600	80	3000

Manufactured by

Oglaend Industries SDN
Shah Alam
Malaysia.

Application/Limitation

Cable trays with UV resistance suitable for open deck.
To be installed in accordance with the manufacturer's instructions and DNV rules.

The installation is to be mechanically protected in accordance with DNV Rules and especially on weather decks in cargo hold areas and through cargo holds. Cable ladders and supports must not be used as a walkway.

Fire resistant cables shall be installed on cable trays/ladders made of steel.

Cable tray made of Polyester with anti-static properties (C1A) with surface resistance tested according to IEC 60079-0 can be installed in gas dangerous areas.

Type Approval documentation

Marking of product

ØS Logo & Øglænd System, Item number, Description, width & length

Other Conditions

Type tests are in accordance with EU RO Mutual Recognition Technical Requirements CABLE TRAYS & DUCTS (GLASS REINFORCED PLASTIC /GRP) Version 0.3 i.e. IACS REC.73 (Dec 2023) and IEC61537 (Edition 2023): Safe working load test (SWL), Impact resistance test, flame retardant test, Smoke test, Volumetric and Surface resistivity test. UV test.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval is complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routines (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Periodical assessment to be performed annually.

Generic Statement for EU RO MR Type Approval Certificate

When a product is presented with this EU RO MR Type Approval Certificate for given application, its acceptability with regards to the limitations stated in the certificate conditions defined in 1b, 1c and 1d of the applied Technical Requirement will be evaluated by the EU RO in charge of classing the ship or being in charge of the unit/system certification.

In accordance with Article 10 of Regulation (EC) No 391/2009 of the European Parliament and of the Council of 23 April 2009 "on common rules and standards for ship inspection and survey organizations", the following organizations, recognized by the EU on this date, have agreed on the technical and procedural conditions under which they will mutually recognize this certificate:

- American Bureau of Shipping (ABS);
- Bureau Veritas (BV);
- China Classification Society (CCS);
- Croatian Register of Shipping (CRS);
- DNV;
- Indian Register of Shipping (IRS);
- Korean Register (KR);
- Lloyd's Register Group Ltd. (LR);
- Nippon Kaiji Kyokai General Incorporated Foundation (ClassNK);
- Polish Register of Shipping (PRS);
- RINA Services S.p.A. (RINA);

The scheme for the mutual recognition of class certificates for materials, equipment and components laid down by Article 10(1) of Regulation (EC) No 391/2009 is only enforceable within the Union in respect of ships flying the flag of a Member State. As far as foreign vessels are concerned, the acceptance of relevant certificates remains at the discretion of relevant non-EU flag States in the exercise of their exclusive jurisdiction, notably under the United Nations Convention on the Law of the Sea (UNCLOS). (In accordance with COMMISSION IMPLEMENTING REGULATION (EU) No 1355/2014 amending Regulation (EC) No 391/2009 - recital (25)).