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

Certificate No:
MRE000001A

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 (Metallic)

with type designation(s)
Cable clamp, non-metallic

The product is found to comply with
EU RO Mutual Recognition Technical Requirements for Cable Trays and Ducts (Metallic)

Intended service
Cable clamps intended to be used in ship's cabling systems necessary for the applications mentioned in 1.b in the TA program.

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 **2027-10-10**.

Issued at **Høvik** on **2022-10-11**
DNV local station: **Stavanger**

for **DNV**

Approval Engineer: **Ivar Bull**

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

SmartCleat Non-metallic GFP (Glass filled Polymer) Single & Trefoil cable cleat for high voltage cables

Classification	According to IEC 61914:2021
Material	GFP
Max and min temperature	+60°C -40°C
Resistance to impact	Very Heavy
Resistance to mechanical forces	Lateral and axial retention
Resistance to electromechanical forces	Withstanding more than one short circuit.
Resistance to corrosion	High

Type	Cable Size (outer diameter)
SmartCleat GFP Trefoil	3x26 mm to 3x75 mm
SmartCleat GFP Single	1x15 mm to 1x130 mm

Manufactured by

Oglaend Industries SDN
Shah Alam
Malaysia

Type Approval documentation

Marking of product

Øglænd logo - Product identification -manufacturing id (or symbol)

Other Conditions

Manufacturers installation instructions to be followed.
For distance between cable cleats refer to manufactures spread sheet “Calculation of distance between SmartCleats”.

Type	Configuration	Cable OD	CC / *S* (mm)	Maximum Peak SC current (kA)	
				Single short circuit.	Multiple short circuit.
SmartCleat® Non-metallic	Single	1 x 32mm	300/200	128	128
	Trefoil	3 x 32mm	300	127	104

CC= Distance between cable cleats. S= Cable centre spacing in flat formation.

For information on collaborating parties in EU RO Mutual recognition, please see www.euromr.org

Periodical assessment

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

The main elements of the assessment are:
- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that design and materials used comply with type approved documents
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed annually and at renewal of this certificate.

END OF CERTIFICATE

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);
- Russian Maritime Register of Shipping (RS).

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)).