DNV·GL

Certificate No:
TAE00003AV

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Cable Tray

with type designation(s)
Light Type (LLE), Heavy Type (LPE)

Issued to
ENMAC ENGENHARIA DE MATERIAIS COMPOSTOS LTDA
Arujá, SP, Brazil

is found to comply with
IACS Rec. No. 73 (June 2002)
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Material	**Plastic**
Suitable for open deck	**Yes**

Issued at **Hamburg** on **2019-06-21**
This Certificate is valid until **2024-06-20**.
DNV GL local station: **Station Rio de Janeiro, Ship**

Approval Engineer: **Carsten Hunsalz**

for **DNV GL**

Arne Schaarmann
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

Glass Fibre Reinforced Plastic Cable tray system with acrylic resin. Light and heavy type complying with IACS Rec 73 (June 2002).

Light type				
	Type designation	Width (mm)	Heigth (mm)	Length (mm)
	LLE-#-100-A	100	101,6	3000 / 6000
	LLE-#-200-A	200	101,6	3000 / 6000
	LLE-#-300-A	300	101,6	3000 / 6000
	LLE-#-400-A	400	101,6	3000 / 6000
	LLE-#-500-A	500	101,6	3000 / 6000
	LLE-#-600-A	600	101,6	3000 / 6000
	LLE-#-700-A	700	101,6	3000 / 6000
	LLE-#-800-A	800	101,6	3000 / 6000
	LLE-#-900-A	900	101,6	3000 / 6000
	LLE-#-1000-A	1000	101,6	3000 / 6000

Heavy type				
	Type designation	Width (mm)	Heigth (mm)	Length (mm)
	LPE-#-200-A	200	152,4	3000 / 6000
	LPE-#-300-A	300	152,4	3000 / 6000
	LPE-#-400-A	400	152,4	3000 / 6000
	LPE-#-500-A	500	152,4	3000 / 6000
	LPE-#-600-A	600	152,4	3000 / 6000
	LPE-#-700-A	700	152,4	3000 / 6000
	LPE-#-800-A	800	152,4	3000 / 6000
	LPE-#-900-A	900	152,4	3000 / 6000
	LPE-#-1000-A	1000	152,4	3000 / 6000

Simbol " # " is either 1 or 2, 1 = 6000mm length and 2 = 3000mm length.
Data given in table are for straight sections.

Application/Limitation

Cable trays suitable for use in gas hazardous areas.
Cable trays suitable for open deck.
To be installed in accordance with the manufacturer's instructions and DNV GL rules.

Type Approval documentation

Tests carried out

Type tests are in accordance with IACS REC.73 (June 2002): Impact resistance test, Safe working load test (SWL), Flame retardant test, Smoke and Toxic test, Volumetric and Surface resistivity test.

Marking of product

ENMAC – LPE(heavy type) or LLE(Light type) – Length – Width – A(Acrylic resin) – CA(classified area)

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are 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 Routine Tests (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 is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE