

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Cable Tray

with type designation(s)
E Light type and E Heavy type

Issued to

STRATUS COMPOSTOS ESTRUTURAIS LTDA
São José dos Campos SP, Brazil

is found to comply with

Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards

Application :

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

This Certificate is valid until **2017-12-31**.

Issued at **Høvik** on **2015-09-25**

DNV GL local station: **Rio de Janeiro, SiO**

Approval Engineer: **Marta Alonso Pontes**

for **DNV GL**

Marit Laumann
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: **262.1-018492-1**
Certificate No: **TAE00000DA**

Product description

Cable tray system - including accessories as Elbow, Bend, Tee & Reducer

Type names:	E Heavy type and E Light type
Standard material:	Fiberglass and acrylic resin

	Type designation	Width (mm)	Height (mm)	Length (mm)	Thickness (mm)	Weight (kg/m)
E Heavy type:	LCP	100	152	3000/6000	6,2	5,64
	LCP	200	152	3000/6000	6,2	5,95
	LCP	300	152	3000/6000	6,2	6,26
	LCP	400	152	3000/6000	6,2	6,56
	LCP	500	152	3000/6000	6,2	6,88
	LCP	600	152	3000/6000	6,2	7,18
	LCP	700	152	3000/6000	6,2	7,49
	LCP	800	152	3000/6000	6,2	7,79
	LCP	900	152	3000/6000	6,2	8,10
	LCP	1000	152	3000/6000	6,2	8,41

	Type designation	Width (mm)	Height (mm)	Length (mm)	Thickness (mm)	Weight (kg/m)
E Light type:	LCL	100	102	3000/6000	4	2,54
	LCL	200	102	3000/6000	4	2,67
	LCL	300	102	3000/6000	4	2,84
	LCL	400	102	3000/6000	4	2,99
	LCL	500	102	3000/6000	4	3,15
	LCL	600	102	3000/6000	4	3,24
	LCL	700	102	3000/6000	4	3,45
	LCL	800	102	3000/6000	4	3,61
	LCL	900	102	3000/6000	4	3,76
	LCL	1000	102	3000/6000	4	3,91

	Type designation	Width (mm)	Height (mm)	Length (mm)	Thickness (mm)	Weight (kg/m)
E Light type:	LCL	100	100	3000/6000	2,8	1,69
	LCL	200	100	3000/6000	2,8	1,84
	LCL	300	100	3000/6000	2,8	1,99
	LCL	400	100	3000/6000	2,8	2,14
	LCL	500	100	3000/6000	2,8	2,30
	LCL	600	100	3000/6000	2,8	2,44
	LCL	700	100	3000/6000	2,8	2,59
	LCL	800	100	3000/6000	2,8	2,74
	LCL	900	100	3000/6000	2,8	2,90
	LCL	1000	100	3000/6000	2,8	3,05

Application/Limitation

The cable tray E Heavy type and E Light type has to be installed in accordance with the producer's loading table for the mentioned type.

The installation is to be generally in accordance with the Rules. It shall be mechanical protected in accordance with our Rules and especially on weather decks in cargo hold areas and through cargo holds.

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Type Approval documentation

Tests carried out

Type tests is accordance with IACS REC.73: Impact resistance test, Safe working load test (SWL), Flame retardant test, Smoke and toxicity test and Resistivity test

Marking of product

STRATUS – Type designation – Width - Height - Length – Material (cover marking).

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.

Survey to be performed at least every second year.

END OF CERTIFICATE