

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Cable Ties**

with type designation(s)
MBT..., MLT..., MAT...

Issued to

HellermannTyton Pte Ltd
Singapore, Singapore

is found to comply with

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.

Issued at **Hamburg** on **2020-10-08**

This Certificate is valid until **2025-10-07**.

for **DNV GL**

DNV GL local station: **Certification of Materials - Singapore**

Approval Engineer: **Harald Amberger**

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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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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

Cable Ties of Roller Ball-, Releasable- and Ladder-Type.
Made of stainless steel 316, with or without coating.
Coating material: Thermosetting polyester.

Roller Ball type:	Metallic	Composite (coated)
Loop tensile strength, 4,6 mm width	450 N	450 N
Loop tensile strength, 7,9 mm width	1150 N	534 N
Max. tested operating temperature	300 °C	165 °C
Min. tested operating temperature	-	- 40 °C
Min. tested installation temperature	-	- 40 °C

Part no.	Length [mm]	Width [mm]	Thickness [mm]	Coated/ Un-
MBTxxxxS	100 – 1600	4,6	0,26	Uncoated
MBTxxxxSFC	100 – 1600	4,6	0,26	Coated
MBTxxxxH	100 – 1600	7,9	0,26	Uncoated
MBTxxxxHFC	100 – 1600	7,9	0,26	Coated

(xxxx represents length)

Roller Ball Zig-Zag type:	Metallic	Composite (coated)
Loop tensile strength, 4,6 mm width	450 N	450 N
Loop tensile strength, 7,9 mm width	1150 N	534 N
Max. tested operating temperature	300 °C	165 °C
Min. tested operating temperature	-	- 40 °C
Min. tested installation temperature	-	- 40 °C

Part no.	Length [mm]	Width [mm]	Thickness [mm]	Coated/ Un-
MBTxxxxSZ	100 – 1600	4,6	0,26	Uncoated
MBTxxxxSZFC	100 – 1600	4,6	0,26	Coated
MBTxxxxHZ	100 – 1600	7,9	0,26	Uncoated
MBTxxxxHZFC	100 – 1600	7,9	0,26	Coated

(xxxx represents length)

Job Id: **262.1-034422-1**
Certificate No: **TAE0000452**

Releasable type:	Metallic	Composite (coated)
Loop tensile strength, 5 mm width	1300 N	1300 N
Loop tensile strength, 10 mm width	2200 N	2200 N
Max. tested operating temperature	300 °C	165 °C
Min. tested operating temperature	-	- 40 °C
Min. tested installation temperature	-	- 40 °C

Part no.	Length [mm]	Width [mm]	Thickness [mm]	Coated/ Un-
MLTxxxxSS5	100 – 1600	5	0,5	Uncoated
MLTxxxxSSC5	100 – 1600	5	0,5	Coated
MLTxxxxSS10	100 – 1600	10	0,5	Uncoated
MLTxxxxSSC10	100 – 1600	10	0,5	Coated

(xxxx represents length)

Ladder type:	Metallic	Composite (coated)
Loop tensile strength, 7 mm width	450 N	450 N
Loop tensile strength, 12 mm width	450 N	450 N
Max. tested operating temperature	300 °C	165 °C
Min. tested operating temperature	-	- 40 °C
Min. tested installation temperature	-	- 40 °C

Part no.	Length [mm]	Width [mm]	Thickness [mm]	Coated/ Un-
MATxxxxSS7	100 – 1600	7	0,3	Uncoated
MATxxxxSSC7	100 – 1600	7	0,3	Coated

(xxxx represents length)

Application/Limitation

For fixing of cables, outdoor and indoor, onboard ships and mobile offshore units.

Type Approval documentation

Tests carried out

Type tests according to IEC 62275: Installation test. Minimum installation temperature test. Minimum operation temperature test. Loop tensile strength test for cable ties retaining 100% strength after testing. Vibration test. Resistance to UV light. Resistance to corrosion.

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Marking of product

Type / catalogue number
Length / Width
Coated / uncoated
Quantity

The marking is placed on each minimum pack quantity only.

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