DNV·GL

Certificate No:
TAE00001NA

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Clip, Saddle, Band

with type designation(s)
SS, RCT and ST

Issued to
Yesha Electricals Private Ltd.
BARODA GUJARAT, India

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.

This Certificate is valid until **2022-01-29**.
Issued at **Hamburg** on **2017-01-30**

DNV GL local station: **Mumbai CMC**

Approval Engineer: **Holger Jansen**

Digitally Signed By: Rinkel, Marco
for **DNV GL**
Signing Date: 2017-02-07
Location: Hamburg - On behalf of

Joannis Papanuskas
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.

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, 4,6mm width	450 N	450 N
Loop tensile strength, 7,9mm 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 [un-coated] [mm]**	**Drawing Ref.**
SSxxxx	100 – 1600	4,6	0,26	YMS-6-798
SSxxxxH	100 – 1600	7,9	0,26	YMS-6-799

(xxxx repesents Lenght)

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 [un-coated] [mm]**	**Drawing Ref.**
SSxxxxZ	100 – 1600	4,6	0,26	YMS-6-709
SSxxxxHZ	100 – 1600	7,9	0,26	YMS-6-708

(xxxx repesents Lenght)

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 [un-coated] [mm]**	**Drawing Ref.**
RCTxxxx/5	100 – 1600	5	0,5	YMS-6-802
RCTxxxx/10	100 – 1600	10	0,5	YMS-6-800

(xxxx repesents Lengh)

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 [un-coated] [mm]	Drawing Ref.
STxxxx/7	100 - 1600	7	0,3	YMS-6-801

(xxxx repesents Lenght)

Application/Limitation

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

Type Approval documentation

Manufacturers brochure

Drawings:
Ball type, Dwg. No. YMS-6-798, rev. 02, dated 2015-02-13
Ball type, Dwg. No. YMS-6-799, rev. 04, dated 2015-02-13
Releasable type, Dwg. No. YMS-6-802, rev.03, dated 2015-02-13
Releasable type, Dwg. No. YMS-6-800, rev 04, dated 2015-02-13
Ladder type, Dwg. No. YMS-6-801, rev. 03, dated 2015-02-13
Ball type, Zig-Zag, drawing No. YMS-6-708, rev. 05, dated 2015-02-13
Ball type, Zig-Zag, drawing No. YMS-6-709, rev. 05, dated 2015-02-13
Data sheets for Roller Ball, Roller Ball Zig-Zag, Ladder and Releasable type received December 2007.
Declaration forms for cable ties according to IEC 62275.
Material specification for steel and coating including Apcoshield Super Durable Polyester Product information.
Bundle diameter recommendation for cable ties.
Installation guide.

Test report:
Renewal test report including Mechanical strength test, Visual examination, Dimension measurements and Hardness measurements, dated 2005-02-10.
ERDA report no. M-02/600-1/99-2000, dated 24-04-00
ERDA report no. M-02/600-2/99-2000, dated 28-02-00
ERDA report no. M-04/225-1/02-03, dated 08-10-02
ERDA report no. M-04/225-2/02-03, dated 08-10-02
ERDA test reports IPOOLWO0059078-1 through -16 dated 21-06-08 according to IEC 62275 and DNV Type Approval Programme Appendix A 828.50Cable Ties.
ERDA test reports M-04/225-1 & 2/02-03 dated 2002/10/08 for A: Salt mist test and B: Vibration test for Uncoated and coated samples of roller Ball type cable ties.
Tensile load test during retention October 2012.

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.

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