

Certificate No:

E-13703

File No:

828.50

Job Id:

262.1-003721-2

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Clip, Saddle, Band

with type designation(s)

SHT18, T18, T25, T30, T40, T50, T60, T120, T150, IT18, IT50, RT250, LK, RF, RELK & LPH

Issued to

HellermannTyton Co., Ltd.

Himeji Hyogo Pref, Japan

is found to comply with

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

DNV Type Approval Programme Appendix 828.50 Cable Ties

IEC 62275 (2006-10)

Application :

For fixing of cables onboard ships and offshore units.

This Certificate is valid until **2017-06-30**.

Issued at **Høvik** on **2015-01-13**

DNV GL local station: **Kobe**

for **DNV GL**

Approval Engineer: **Nicolay Horn**

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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. If any person suffers loss or damage which is proven to have been caused by any negligent act or omission of the Society, then the Society shall pay compensation to such person for his proven direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question. The maximum compensation shall never exceed USD 2 million. In this provision the "Society" shall mean DNV GL AS as well as all its direct and indirect owners, affiliates, subsidiaries, directors, officers, employees, agents and any other person or entity acting on behalf of DNV GL AS.

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Name and place of manufacturer

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Product description

Self locking cable tie. Non-reopenable in one or more of the following materials:

Nylon 66 (Natural color) (N)
Nylon 66 weather/UV resistant (Black), (W)
Nylon 66 Heat Stabilised (Light green) (HS)
Nylon 66 Heat Stabilised and weather/UV resistant (Black) (HSW)
ETFE (Blue)
Nylon 46(Beige) (HR)

Colour: Black, Natural (transparent), Red, Blue, yellow, green.

O: tested to be satisfactory

Classification of cable ties according to IEC 62275 section 6:

SHT18:	N	W	HS	HR
Retains 50/100% strength after test:	100	100	100	50
Resistance to UV-light	—	O	—	—
Loop tensile strength, 1,8mm width	80 N	80 N	80 N	80 N
Max. tested operating temperature	85°C	85°C	110°C	130 °C
Min. tested operating temperature	-40°C	-40°C	-40°C	- 40 °C
Min. tested installation temperature	-40°C	-40°C	-40°C	- 40 °C

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T18:	N	W	HS	HSW	ETFE	HR
Retains 50/100% strength after test:	100	100	100	100	50	50
Resistance to UV-light	—	O	—	O	O	—
Loop tensile strength, 2,2mm width	80 N	80 N	80 N	80 N		80 N
Loop tensile strength, 2,5mm width	80 N	80 N	80 N	80 N	80 N	80 N
Max. tested operating temperature	85°C	85°C	110°C	110°C	170°C	130°C
Min. tested operating temperature	-40°C	-40°C	-40°C	-40°C	-80°C	-40°C
Min. tested installation temperature	-40°C	-40°C	-40°C	-40°C	-80°C	-40°C
T25L series	N	W				
Loop tensile strength, 2,8 mm width	110 N	110 N				
Max. tested operating temperature	85°C	85°C				
Min. tested operating temperature	-40°C	-40°C				
Min. tested installation temperature	-40°C	-40°C				

T30:	N	W	HS	HSW	ETFE	HR
Retains 50/100% strength after test:	100	100	100	100	50	50
Resistance to UV-light	—	O	—	O	O	—
Loop tensile strength, 3,5mm width	135 N	135 N	135 N	135 N	135 N	135 N
Loop tensile strength, 3,6mm width	135 N	135 N	135 N	135 N		
Max. tested operating temperature	85°C	85°C	110°C	110°C	170°C	130°C
Min. tested operating temperature	-40°C	-40°C	-40°C	-40°C	-80°C	-40°C
Min. tested installation temperature	-40°C	-40°C	-40°C	-40°C	-80°C	-40°C

T40:	N	W	HS
Retains 50/100% strength after test:	100	100	100
Resistance to UV-light	—	O	—
Loop tensile strength, 3,5mm width	180 N	180 N	180 N
Loop tensile strength, 4,0mm width	180 N		
Max. tested operating temperature	85°C	85°C	110°C
Min. tested operating temperature	-40°C	-40°C	-40°C
Min. tested installation temperature	-40°C	-40°C	-40°C

T50:	N	W	HS	HSW	ETFE	HR
Retains 50/100% strength after test:	50	100	100	100	50	50
Resistance to UV-light	—	O	—	O	O	—
Loop tensile strength, 4,6mm width	225 N	225 N	225 N	225 N		225 N
Loop tensile strength, 4,7mm width	225 N	225 N	225 N		222 N	
Loop tensile strength, 4,8mm width	225 N	225 N	225 N	225 N		225 N
Max. tested operating temperature	85°C	85°C	110°C	110°C	170°C	130°C
Min. tested operating temperature	-40°C	-40°C	-40°C	-40°C	-80°C	-40°C
Min. tested installation temperature	-40°C	-40°C	-40°C	-40°C	-80°C	-40°C

T60:	N	W	HS	HSW	HR
Retains 50/100% strength after test:	100	100	100	100	50
Resistance to UV-light	—	O	—	O	—
Loop tensile strength, 4,8mm width	270 N	270 N	270 N	270 N	270 N
Max. tested operating temperature	85°C	85°C	110°C	110°C	130°C
Min. tested operating temperature	-40°C	-40°C	-40°C	-40°C	-40°C
Min. tested installation temperature	-40°C	-40°C	-40°C	-40°C	-40°C

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T120:	N	W	HS	HSW	HR
Retains 50/100% strength after test:	100	100	100	100	50
Resistance to UV-light	—	O	—	O	—
Loop tensile strength, 7,5mm width	535 N	535 N	535 N	535 N	535 N
Max. tested operating temperature	85°C	85°C	110°C	110°C	130°C
Min. tested operating temperature	-40°C	-40°C	-40°C	-40°C	-40°C
Min. tested installation temperature	-40°C	-40°C	-40°C	-40°C	-40°C

T150 series	N	W
Loop tensile strength, 8,8 mm width	780 N	780 N
Max. tested operating temperature	85°C	85°C
Min. tested operating temperature	-40°C	-40°C
Min. tested installation temperature	-40°C	-40°C

IT18:	N	W	HS	HSW	HR
Retains 50/100% strength after test:	100	100	100	100	50
Resistance to UV-light	—	O	—	O	—
Loop tensile strength, 2,5mm width	80 N	80 N	80 N	80 N	80 N
Max. tested operating temperature	85°C	85°C	110°C	110°C	130°C
Min. tested operating temperature	-40°C	-40°C	-40°C	-40°C	-40°C
Min. tested installation temperature	-40°C	-40°C	-40°C	-40°C	-40°C

IT50 series	N	W
Loop tensile strength, 4,7 mm width	225 N	225 N
Max. tested operating temperature	85°C	85°C
Min. tested operating temperature	-40°C	-40°C
Min. tested installation temperature	-40°C	-40°C

LK:	N	W	HS	HSW	HR
Retains 50/100% strength after test:	100	100	100	100	50
Resistance to UV-light	—	O	—	O	—
Loop tensile strength, 3,5mm width	225 N	225 N	225 N	225 N	225 N
Loop tensile strength, 4,8mm width	360 N	360 N	360 N	360 N	360 N
Loop tensile strength, 8,7mm width	1115 N	1115 N	1115 N	1115 N	1115 N
Loop tensile strength, 13mm width	85°C	85°C	110°C	110°C	130°C
Max. tested operating temperature	-40°C	-40°C	-40°C	-40°C	-40°C
Min. tested operating temperature	-40°C	-40°C	-40°C	-40°C	-40°C
Min. tested installation temperature	225 N	225 N	225 N	225 N	225 N

RF:	N	W	HSW	HR
Retains 50/100% strength after test:	100	100	100	50
Resistance to UV-light	—	O	O	—
Loop tensile strength, 7,4mm width	222 N	222 N	222 N	222 N
Max. tested operating temperature	85°C	85°C	110°C	130°C
Min. tested operating temperature	-40°C	-40°C	-40°C	-40°C
Min. tested installation temperature	-40°C	-40°C	-40°C	-40°C

RT250 series	N	W
Loop tensile strength, 12,5 mm width	1115 N	1115 N
Max. tested operating temperature	85°C	85°C
Min. tested operating temperature	-40°C	-40°C
Min. tested installation temperature	-40°C	-40°C

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RELK series	N	W
Loop tensile strength, 4,6 mm width	225 N	225 N
Max. tested operating temperature	85°C	85°C
Min. tested operating temperature	-40°C	-40°C
Min. tested installation temperature	-40°C	-40°C

LPH series	N	W
Loop tensile strength, 9,0 mm width	310 N	310 N
Max. tested operating temperature	85°C	85°C
Min. tested operating temperature	-40°C	-40°C
Min. tested installation temperature	-40°C	-40°C

TYPE	Length mm	Width mm
SHT18	100	1.8
T 18 S	80	2.2
T 18 R	100	2.5
T 18 I	148	2.5
T 18 L	205	2.5
T 25L	240	2.8
T 25LL	330	2.8
T 30 R	152	3.5
T 30 L (T30M)	202	3.6
T 30LL	290	3.5
T 30XL	370	3.5
T 40 S	153	3.5
T 40 I	296	4.0
T 50 S	158	4.7
T 50 R	202	4.6
T 50 L	383	4.8
T 50R-DH	210	4.7
T 50L-DH	395	4.7
T 60 S	251	4.8
T 60 R	301	4.8
T 120 R	380	7.6
T 120 S	225	7.6
T 120 I	300	7.6
T 120 M	460	7.6
T 120 L	760	7.6
T 150 R	390	8.8
T 150 M	535	8.8
T 150 L	820	8.8
T 150 XL	1095	8.9

TYPE	Length mm	Width mm
T 150 XLL	1325	8.9
IT18R	100	2.5
IT18FL	110	2.5
IT18I	140	2.5
IT18FD	100	2.5
IT50R	210	4.7
IT50R/2	205	4.7
IT50R/3	205	4.7
IT50L	380	4.7
RT250S	230	12.5
RT250R	515	12.5
RT250M	565	12.5
RT250I	735	12.5
RT250L	880	12.5
RT250XL	1020	12.5
RF100	100	7.4
RF140	140	7.4
RF250	250	7.4
LK 2 A	270	4.8
LK 3 A	281	8.7
LK5	541	13.0
RELK2R	200	4.6
RELK2M	250	4.6
RELK2L	350	4.6
LPH175	175	9.0
LPH275	265	9.0
LPH350	355	9.0

Application/Limitation

For fixing of cables onboard ships and offshore units. If used on open deck, UV-resistant ties must be used.

Where the rules states metal cable ties to be used, plastic cable ties may be used in addition but not instead of the metal ties.

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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.

Dimension report, Fluid compatibility, Melting temperature, Thermal shock, Flammability.

Marking of product

Type/catalogue number, Length/Width.

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 is complied with and that no alterations are made to the product design or choice of materials.

The main elements of the survey are:

- Inspection on factory samples, selected at random from the production line
- 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