



# TYPE APPROVAL CERTIFICATE

Certificate No:  
**TAE00002U5**  
Revision No:  
**1**

## This is to certify:

### That the Cable Ties

with type designation(s)

**EL-R2, SEL-R1, ECO100, ECO150, ECO200, ECO250, ECO300, GL100, GL150, GL200, GL250, GL300, GL380, GL 460, GL 600, Z130R, Z20R, Z20R-HSW, Z40R, Z80L, Z80L-HSW, Z80R, Z80I, AB460, AB460-W, AB600 & AB600-W**

Issued to

**HellermannTyton Co., Ltd.**  
**Himeji, Hyogo Pref, Japan**

is found to comply with

**DNV rules for classification – Ships, offshore units, and high speed and light craft**  
**IEC 62275 (2018-08)**

## Application :

**Products approved by this certificate are accepted for installation on all vessels classed by DNV.**

<b>Material</b>	<b>Non-metallic</b>
<b>Suitable for open deck</b>	<b>Partly</b>

Issued at **Høvik** on **2023-01-18**

for **DNV**

This Certificate is valid until **2027-06-30**.

DNV local station: **Kobe**

Approval Engineer: **Nicolay Horn**

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**Frederik Tore Elter**  
**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 AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") 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.



## Name and Place of manufacturer

HellermannTyton Co., Ltd.  
 766, Anji, Yasutomi-cho  
 Himeji Hyogo  
 Japan 671-2401

## 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)  
 Polyacetal Resins weather/UV resistant (Black) (W2)  
 Nylon 11 (Natural color) (N2)  
 Nylon 11 weather/UV resistant (Black) (W3)  
 Nylon 11 heat stabilized and weather/UV resistant

Colour: Black, Natural (transparent), Red, Blue, yellow, green.  
 O: tested to be satisfactory

EL-R2*:	W2
Retains 50/100% strength after test:	100
Resistance to UV-light	O
Loop tensile strength, 12,7 mm width	1110 N
Max. tested operating temperature	85°C
Min. tested operating temperature	-40°C
Min. tested installation temperature	-40°C

\*EL-R2 may be followed by suffix '-15' or '-100' representing reel length

SEL-R1*:	W2
Retains 50/100% strength after test:	100
Resistance to UV-light	O
Loop tensile strength, 7,6 mm width	780 N
Max. tested operating temperature	85°C
Min. tested operating temperature	-40°C
Min. tested installation temperature	-40°C

\*SEL-R1 may be followed by suffix '-15' or '-100' representing

ECO100:	N2	W3
Retains 50/100% strength after test:	100	100
Resistance to UV-light	-	O
Loop tensile strength, 2,5 mm width	80 N	80 N
Max. tested operating temperature	105°C	105°C
Min. tested operating temperature	-40°C	-40°C
Min. tested installation temperature	-40°C	-40°C

ECO150:	N2	W3
Retains 50/100% strength after test:	100	100
Resistance to UV-light	-	O
Loop tensile strength, 3,5 mm width	130 N	130 N
Max. tested operating temperature	105°C	105°C
Min. tested operating temperature	-40°C	-40°C
Min. tested installation temperature	-40°C	-40°C

ECO200:	N2	W3
Retains 50/100% strength after test:	100	100
Resistance to UV-light	-	O
Loop tensile strength, 4,7 mm width	200 N	200 N
Max. tested operating temperature	105°C	105°C
Min. tested operating temperature	-40°C	-40°C
Min. tested installation temperature	-40°C	-40°C

ECO250:	N2	W3
Retains 50/100% strength after test:	100	100
Resistance to UV-light	-	O
Loop tensile strength, 4,8mm width	250 N	250 N
Max. tested operating temperature	105°C	105°C
Min. tested operating temperature	-40°C	-40°C
Min. tested installation temperature	-40°C	-40°C

ECO300:	N2	W3
Retains 50/100% strength after test:	100	100
Resistance to UV-light	-	O
Loop tensile strength, 4,8 mm width	250 N	250 N
Max. tested operating temperature	105°C	105°C
Min. tested operating temperature	-40°C	-40°C
Min. tested installation temperature	-40°C	-40°C

GL100:	W3
Retains 50/100% strength after test:	100
Resistance to UV-light	O
Loop tensile strength, 2,5 mm width	80 N
Max. tested operating temperature	105°C
Min. tested operating temperature	-40°C
Min. tested installation temperature	-40°C

GL150:	W3
Retains 50/100% strength after test:	100
Resistance to UV-light	O
Loop tensile strength, 3,5 mm width	130 N
Max. tested operating temperature	105°C
Min. tested operating temperature	-40°C
Min. tested installation temperature	-40°C

GL200:	W3
Retains 50/100% strength after test:	100
Resistance to UV-light	O
Loop tensile strength, 4,7 mm width	200 N
Max. tested operating temperature	105°C
Min. tested operating temperature	-40°C
Min. tested installation temperature	-40°C

GL250:	W3
Retains 50/100% strength after test:	100
Resistance to UV-light	O
Loop tensile strength, 4,8 mm width	250 N
Max. tested operating temperature	105°C
Min. tested operating temperature	-40°C
Min. tested installation temperature	-40°C

GL300:	W3
Retains 50/100% strength after test:	100
Resistance to UV-light	O
Loop tensile strength, 4,8 mm width	250 N
Max. tested operating temperature	105°C
Min. tested operating temperature	-40°C
Min. tested installation temperature	-40°C

GL380:	W3
Retains 50/100% strength after test:	100
Resistance to UV-light	O
Loop tensile strength, 4,8 mm width	200 N
Max. tested operating temperature	105°C
Min. tested operating temperature	-40°C
Min. tested installation temperature	-40°C

GL460	W3
Retains 50/100% strength after test:	100
Resistance to UV-light	O
Loop tensile strength, 9,6 mm width	480 N
Max. tested operating temperature	105°C
Min. tested operating temperature	-40°C
Min. tested installation temperature	-40°C

GL600:	W3
Retains 50/100% strength after test:	100
Resistance to UV-light	O
Loop tensile strength, 9,6 mm width	480 N
Max. tested operating temperature	105°C
Min. tested operating temperature	-40°C
Min. tested installation temperature	-40°C

Z20R, Z20R-HSW:	N	HSW
Retains 50/100% strength after test:	100	100
Resistance to UV-light	-	O
Loop tensile strength, 2,7 mm width	90 N	90 N
Max. tested operating temperature	85°C	110°C
Min. tested operating temperature	-40°C	-40°C
Min. tested installation temperature	-40°C	-40°C

Z40R:	N	HSW
Retains 50/100% strength after test:	100	100
Resistance to UV-light	-	O
Loop tensile strength, 2,7 mm width	180 N	180 N
Max. tested operating temperature	85°C	110°C
Min. tested operating temperature	-40°C	-40°C
Min. tested installation temperature	-40°C	-40°C

Z80L & Z80L-HSW:	N	HSW
Retains 50/100% strength after test:	100	100
Resistance to UV-light	-	O
Loop tensile strength, 5,2 mm width	355 N	355 N
Max. tested operating temperature	85°C	110°C
Min. tested operating temperature	-40°C	-40°C
Min. tested installation temperature	-40°C	-40°C

Z80R & Z80I:	N	HSW
Retains 50/100% strength after test:	100	100
Resistance to UV-light	-	O
Loop tensile strength, 5,0 mm width	355 N	355 N
Max. tested operating temperature	85°C	110°C
Min. tested operating temperature	-40°C	-40°C
Min. tested installation temperature	-40°C	-40°C

Z130R:	N	HSW
Retains 50/100% strength after test:	100	100
Resistance to UV-light	-	O
Loop tensile strength, 7,8 mm width	580 N	580 N
Max. tested operating temperature	85°C	110°C
Min. tested operating temperature	-40°C	-40°C
Min. tested installation temperature	-40°C	-40°C

AB460 & AB460-W:	N	W
Retains 50/100% strength after test:	100	100
Resistance to UV-light	-	O
Loop tensile strength, 9,6 mm width	900 N	900 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

AB600 & AB600-W:	N	W
Retains 50/100% strength after test:	100	100
Resistance to UV-light	-	O
Loop tensile strength, 9,6 mm width	900 N	900 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
EL-R2-15	15,000	12.7
EL-R2-100	100,000	12.7
SEL-R1-15	15,000	7.6
SEL-R1-100	100,000	7.6
ECO100	100	2.5
ECO150	153	3.5
ECO200	202	4.7
ECO250	252	4.8
ECO300	301	4.8
GL100	100	2.5
GL150	153	3.5
GL200	202	4.7
GL250	252	4.8
GL300	301	4.8
GL380	383	4.8
GL460	465	9.6

GL600	605	9.6
Z20R	101	2.7
Z20R-HSW	101	2.7
Z80L	400	5.2
Z80L-HSW	400	5.2
Z40R	151	3.7
Z80R	200	5.0
Z40R-HSW	151	3.7
Z80R-HSW	200	5.0
Z80I-HSW	301	5.0
Z130R-HSW	402	7.8
Z80I	301	5.0
Z130R	402	7.8
AB460	465	9.6
AB460-W	465	9.6
AB600	605	9.6
AB600-W	605	9.6

## 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.

## Type Approval documentation

- Data sheets:** List of new items, XL sheet from manufacturer, undated.  
Booklet of drawings received 2007-11-27.
- Test reports:** Cable ties reporting according to IEC 62275, doc. No. HTUKDNV1804001 dated 2018.04.20.  
Hellermann Tyton Internal Performance Testing, issued July 2014.  
MIL. Spec 23190 Report. Ref. 3367 by Hellermann Insuloid May-96.  
RAPRA Technology, Report no.28069. Cape Environmental Eng. Ltd. Report No. 6562, 6563. UL  
File no. E70062 – Data sheet  
(test reports to show compliance with IEC 62275 to be included)

## 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 assessment 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.

Assessment to be performed at 1.5 and 3 year and at renewal.

END OF CERTIFICATE