

Certificate No:

E-13704

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)

EL-R2, SEL-R1, ECO100, ECO150, ECO200, ECO250, ECO300, GL100, GL150, GL200, GL250, GL300, Z130R, Z40R, Z80R, Z80I & AB600

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**

.....
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)
Polyacetal Resins weather/UV resistant (Black) (W2)
Nylon 11 (Natural color) (N2)
Nylon 11 weather/UV resistant (Black) (W3)

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

Classification of cable ties according to IEC 62275 section 6:

| | |
|--------------------------------------|--------|
| EL-R2*: | W2 |
| Retains 50/100% strength after test: | 100 |
| Resistance to UV-light | O |
| Loop tensile strength, 12,7mm 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

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| | |
|--------------------------------------|-------|
| SEL-R1*: | W2 |
| Retains 50/100% strength after test: | 100 |
| Resistance to UV-light | O |
| Loop tensile strength, 7,6mm 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: | N | W |
| Retains 50/100% strength after test: | 100 | 100 |
| Resistance to UV-light | - | O |
| Loop tensile strength, 2,5mm 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: | N | W |
| Retains 50/100% strength after test: | 100 | 100 |
| Resistance to UV-light | - | O |
| Loop tensile strength, 3,5mm 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: | N | W |
| Retains 50/100% strength after test: | 100 | 100 |
| Resistance to UV-light | - | O |
| Loop tensile strength, 4,7mm 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: | N | W |
| 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: | N | W |
| 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 |

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

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

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

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

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

| | | |
|--------------------------------------|-------|-------|
| Z40R: | N | HSW |
| Retains 50/100% strength after test: | 100 | 100 |
| Resistance to UV-light | - | O |
| Loop tensile strength, 3,7mm 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 |

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| | | |
|--------------------------------------|-------|-------|
| Z80R & Z80I: | N | HSW |
| Retains 50/100% strength after test: | 100 | 100 |
| Resistance to UV-light | - | O |
| Loop tensile strength, 5,0mm 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, 7,8mm 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 |

| | | |
|--------------------------------------|-------|-------|
| AB600: | N | W |
| Retains 50/100% strength after test: | 100 | 100 |
| Resistance to UV-light | - | O |
| Loop tensile strength, 9,6mm 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 |

| TYPE | Length mm | Width mm |
|------------|--------------|-------------|
| EL-R2-15 | 15,000 | 12.7 |
| EL-R2-100 | 100,000 | 12.7 |
| SEL-R2-15 | 15,000 | 7.6 |
| SEL-R2-100 | 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 |

| TYPE | Length mm | Width mm |
|-------|--------------|-------------|
| GL150 | 153 | 3.5 |
| GL200 | 202 | 4.7 |
| GL250 | 252 | 4.8 |
| GL300 | 301 | 4.8 |
| Z40R | 150 | 3.7 |
| Z80R | 200 | 5.0 |
| Z80I | 300 | 5.0 |
| Z130R | 402 | 7.8 |
| AB600 | 600 | 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

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

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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