DNV·GL

Certificate No:
TAE00003WT

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Cable Ties

with type designation(s)
CT, CTW

Issued to
Hayata P.C. Enterprise Co., Ltd.
Tainan, Taiwan

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft
IEC 62275 (2018-08)

Application :

For fixing of cables indoor on board ships and offshore units.

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Issued at **Hamburg** on **2020-12-03**
This Certificate is valid until **2025-12-31**.
DNV GL local station: **Kaohsiung**

Approval Engineer: **Harald Amberger**

for **DNV GL**

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.

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Product description

Type: Nylon Cable Ties made from nylon 6/6

CT - lockable cable tie. Colour: Normal is true colour (natural), black, other can be special ordered.
CT-W - lockable cable tie, weather resistant.
Colour: Black
Max. operating temperature: 75 °C
Min. operating temperature: 0 °C for 4,8mm & 9,0mm cable tie width
-5 °C for other cable tie widths
Min. installation temperature: 0 °C
Loop tensile strength test for ties retains 50% strength after test conditions.
Item numbers shown below refer to 100pcs. Most items can be delivered with 1000pcs. Will have a suffix "K" in addition. (Not shown in the certificate.)

Type	Length mm	Width mm	Thickness mm	Max. bundle dia. mm	Min. tensile strength N
CTT-070-2C	71	1,6	0,8	10	29,4
CT-060-2C	63,7	2,4	1,0	10	78,4
CT-075-2C	75	2,4	1,0	13	78,4
CT-080-2C	80	2,5	1,0	14	78,4
CT-094-2C	96	2,5	1,0	19	78,4
CT-100-2C	100	2,5	1,1	20	78,4
CTT-100-2C	103	1,95	1,0	20	49,0
CT-120-2C	120	2,5	1,3	25	78,4
CT-140-2C	142	2,5	1,2	32	78,4
CT-150-2C	155	2,5	1,3	35	78,4
CT-165-2C	165	2,5	1,3	39	78,4
CT-200-2C	203	2,5	1,3	50	78,4
CT-250-2C	250	2,5	1,3	62	78,4
CT-300-2C	300	2,5	1,3	76	78,4
CT-400-2C	400	2,5	1,4	106	78,4
CT-120-3C	120	3,2	1,35	24	176,5
CT-140-3C	142	3,2	1,5	31	176,5
CT-150-3C	150	3,6	1,4	33	176,5
CT-180T-3C	180	3,6	1,3	44	176,5
CT-180-3C	180	3,6	1,3	44	176,5
CT-200-3C	203	3,2	1,4	50	176,5
CT-200-3LC	203	3,6	1,4	47	176,5
CT-250-3C	250	3,6	1,4	62	176,5
CT-265-3C	265	3,6	1,4	67	176,5
CT-292-3C	292	3,6	1,4	75	176,5
CT-330-3C	330	3,6	1,5	85	176,5
CT-370-3C	368	3,6	1,4	96	176,5
CT-120-4C	120	4,8	1,5	24	215,6
CT-160-4C	160	4,8	1,6	35	215,6
CT-190T-4C	190	4,8	1,5	45	215,6
CT-190-4C	190	4,8	1,5	45	215,6

Type	Length mm	Width mm	Thickness mm	Max. bundle dia. mm	Min. tensile strength N
CT-200-4C	203	4,6	1,6	47	215,6
CT-200-4LC	203	4,8	1,4	47	215,6
CT-200T-4C	203	4,6	1,5	51	215,6
CT-250-4C	250	4,8	1,5	62	215,6
CT-280-4C	280	4,8	1,5	70	215,6
CT-300TZ-4C	300	4,8	1,5	76	215,6
CT-300-4C	300	4,8	1,5	76	215,6
CT-310-4C	310	4,8	1,5	79	215,6
CT-370-4C	368	4,8	1,5	96	215,6
CT-385-4C	385	4,8	1,5	101	215,6
CT-432-4C	432	4,8	1,5	115	215,6
CT-450-4C	450	4,8	1,5	129	215,6
CT-500-4C	500	4,8	1,6	135	215,6
CT-550-4C	550	4,8	1,5	149	215,6
CT-610-4C	610	4,8	1,8	166	215,6
CT-635-4C	635	4,8	1,8	173	215,6
CT-914-4C	914	4,8	1,9	255	215,6
CT-380-6C	380	6,4	2,0	103	441,0
CT-750-7C	750	7,5	1,8	205	539,0
CT-120-7C	120	7,6	1,5	20	539,0
CT-150-7C	150	7,6	1,5	29	539,0
CT-200-7C	203	7,6	1,8	47	539,0
CT-240-7C	240	7,6	1,8	56	539,0
CT-280-7C	280	7,6	1,7	68	539,0
CT-300-7C	300	7,6	1,6	73	539,0
CT-340-7C	340	7,6	1,8	84	539,0
CT-380-7C	380	7,6	2,0	96	539,0
CT-380-8C	380	8,0	2,0	96	539,0
CT-450-8C	450	8,0	2,0	117	539,0
CT-500-8C	500	8,0	1,9	131	539,0
CT-550-8C	550	8,0	2,0	147	539,0
CT-610-9C	610	9,0	2,0	162	784,0
CT-685-9C	685	9,0	2,0	185	784,0
CT-710-9C	710	9,0	2,0	192	784,0
CT-762-9C	762	9,0	2,0	208	784,0
CT-812-9C	812	9,0	1,9	223	784,0
CT-914-9C	914	9,0	2,0	253	784,0
CT-940-9C	940	9,0	2,0	261	784,0
CT-1168-9C	1168	9,0	2,0	327	784,0
CT-1219-9C	1219	9,0	2,0	342	784,0
CT-1500-9C	1500	9,0	2,0	462	784,0
CT-230-13C	230	12,7	2,2	53	882,0
CT-255-18C	254	17,8	1,4	39	294,0
CT-280-13C	280	12,7	2,2	67	882,0

Type	Length mm	Width mm	Thickness mm	Max. bundle dia. mm	Min. tensile strength N
CT-380-13C	380	12,7	2,2	96	882,0
CT-480-13C	480	12,7	2,2	126	1117,2
CT-550-13C	550	12,7	2,0	146	1117,2
CT-580-13C	580	12,7	2,2	155	1117,2
CT-730-13C	730	12,7	2,2	214	1117,2
CT-880-13C	880	12,7	2,2	242	1117,2
CT-1030-13C	1030	12,7	2,2	305	1117,2
CTT-070W-2C	71	1,6	0,8	10	29,4
CT-060W-2C	63,7	2,4	1,0	10	78,4
CT-075W-2C	75	2,4	1,0	13	78,4
CT-080W-2C	80	2,5	1,0	14	78,4
CT-094W-2C	96	2,5	1,0	19	78,4
CT-100W-2C	100	2,5	1,1	20	78,4
CTT-100W-2C	103	1,95	1,0	20	49,0
CT-120W-2C	120	2,5	1,3	25	78,4
CT-140W-2C	142	2,5	1,2	32	78,4
CT-150W-2C	155	2,5	1,3	35	78,4
CT-165W-2C	165	2,5	1,3	39	78,4
CT-200W-2C	203	2,5	1,3	50	78,4
CT-250W-2C	250	2,5	1,3	62	78,4
CT-300W-2C	300	2,5	1,3	76	78,4
CT-400W-2C	400	2,5	1,4	106	78,4
CT-120W-3C	120	3,2	1,35	24	176,5
CT-140W-3C	142	3,2	1,5	31	176,5
CT-150W-3C	150	3,6	1,4	33	176,5
CT-180TW-3C	180	3,6	1,3	44	176,5
CT-180W-3C	180	3,6	1,3	44	176,5
CT-200W-3C	203	3,2	1,4	50	176,5
CT-200W-3LC	203	3,6	1,4	47	176,5
CT-250W-3C	250	3,6	1,4	62	176,5
CT-265W-3C	265	3,6	1,4	67	176,5
CT-292W-3C	292	3,6	1,4	75	176,5
CT-330W-3C	330	3,6	1,5	85	176,5
CT-370W-3C	368	3,6	1,4	96	176,5
CT-120W-4C	120	4,8	1,5	24	215,6
CT-160W-4C	160	4,8	1,6	35	215,6
CT-190TW-4C	190	4,8	1,5	45	215,6
CT-190W-4C	190	4,8	1,5	45	215,6
CT-200W-4C	203	4,6	1,6	47	215,6
CT-200W-4LC	203	4,8	1,4	47	215,6
CT-200TW-4C	203	4,6	1,5	51	215,6
CT-250W-4C	250	4,8	1,5	62	215,6
CT-280W-4C	280	4,8	1,5	70	215,6

Type	Length mm	Width mm	Thickness mm	Max. bundle dia. mm	Min. tensile strength N
CT-300TZW-4C	300	4,8	1,5	76	215,6
CT-300W-4C	300	4,8	1,5	76	215,6
CT-310W-4C	310	4,8	1,5	79	215,6
CT-370W-4C	368	4,8	1,5	96	215,6
CT-385W-4C	385	4,8	1,5	101	215,6
CT-432W-4C	432	4,8	1,5	115	215,6
CT-450W-4C	450	4,8	1,5	129	215,6
CT-500W-4C	500	4,8	1,6	135	215,6
CT-550W-4C	550	4,8	1,5	149	215,6
CT-610W-4C	610	4,8	1,8	166	215,6
CT-635W-4C	635	4,8	1,8	173	215,6
CT-914W-4C	914	4,8	1,9	255	215,6
CT-380W-6C	380	6,4	2,0	103	441,0
CT-750W-7C	750	7,5	1,8	205	539,0
CT-120W-7C	120	7,6	1,5	20	539,0
CT-150W-7C	150	7,6	1,5	29	539,0
CT-200W-7C	203	7,6	1,8	47	539,0
CT-240W-7C	240	7,6	1,8	56	539,0
CT-280W-7C	280	7,6	1,7	68	539,0
CT-300W-7C	300	7,6	1,6	73	539,0
CT-340W-7C	340	7,6	1,8	84	539,0
CT-380W-7C	380	7,6	2,0	96	539,0
CT-380W-8C	380	8,0	2,0	96	539,0
CT-450W-8C	450	8,0	2,0	117	539,0
CT-500W-8C	500	8,0	2,0	131	539,0
CT-550W-8C	550	8,0	2,0	147	539,0
CT-610W-9C	610	9,0	2,0	162	784,0
CT-685W-9C	685	9,0	2,0	185	784,0
CT-710W-9C	710	9,0	2,0	192	784,0
CT-762W-9C	762	9,0	2,0	208	784,0
CT-812W-9C	812	9,0	1,9	223	784,0
CT-914W-9C	914	9,0	2,0	253	784,0
CT-940W-9C	940	9,0	2,0	261	784,0
CT-1168W-9C	1168	9,0	2,0	327	784,0
CT-1219W-9C	1219	9,0	2,0	342	784,0
CT-1500W-9C	1500	9,0	2,0	462	784,0
CT-230W-13C	230	12,7	2,2	53	882,0
CT-255W-18C	254	17,8	1,4	39	294,0
CT-280W-13C	280	12,7	2,2	67	882,0
CT-380W-13C	380	12,7	2,2	96	882,0
CT-480W-13C	480	12,7	2,2	126	1117,2
CT-550W-13C	550	12,7	2,0	146	1117,2
CT-580W-13C	580	12,7	2,2	155	1117,2

Type	Length mm	Width mm	Thickness mm	Max. bundle dia. mm	Min. tensile strength N
CT-730W-13C	730	12,7	2,2	214	1117,2
CT-880W-13C	880	12,7	2,2	242	1117,2
CT-1030W-13C	1030	12,7	2,2	305	1117,2
MT-100-2C	113	2,5	1,1	25	80,0
MT-155-3C	171,5	3,7	1,3	40	180,0
MT-205-4C	221,3	4,2	1,3	52	220,0
MT-370-4C	370	4,8	1,5	102	220,0
MT-400-7C	410	7,8	1,8	112	550,0
MV-100-2C	100	2,5	1,1	21	80,0
MV-110-2C	110	2,5	1,2	18	80,0
MV-200-4C	200	4,6	1,4	46	220,0
RV-125B-7C	125	7,6	1,3	27	220,0
RV-150B-7C	150	7,6	1,3	32	220,0
RV-200B-7C	200	7,6	1,3	46	220,0
RV-300B-7C	300	7,6	1,3	73	220,0

Application/Limitation

For fixing of cables indoor on board ships and offshore units.
Additional metallic cable ties to be installed as required by the DNV GL Rules.

Type Approval documentation

The approval is based on the following documentation:
Test report no. KV-09-03571X-1, dated 27. October 2009, from SGS.
Cable Tie Loop Tensile Strength Test report , dated 22 October 2020
Drawing revised on 2009/Nov. total 6 pages.
Application for type approval with authorization agreement dated 2020-12-03.

Tests carried out

Installation test, minimum installation temp. test, minimum operation temp. test, loop tensile strength test as received condition, after heat aging and after temperature cycling, contribution to fire (IEC60698-11-5), resistance to UV light (Exposed for 1000 hours to Xenon-Arc)

Marking of product

Company Name, Type designation and Size

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