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Report No.: XD127238921091204SR

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Anhui Ruiste New Material Co., Ltd

CE TEST REPORT

Prepared For :	Anhui Ruiste New Material Co., Ltd No. 88, Xiyi Avenue West and Hehuan Road South, Bowu Modern Industrial Park, High tech Industrial Development Zone, Bozhou City, Anhui Province, China
Product Name :	Cable ties
Trade Name:	/
Main Test Model:	2.5 x 100
Additional:	See the page 4
Prepared By :	BST Testing (Shenzhen) Co.,Ltd. No.7,New Era Industrial Zone, Guantian, Bao'an District, Shenzhen, Guangdong, China
Test Date:	Sep.05, 2023- Sep.12, 2023
Date of Report:	Sep.12, 2023
Report No.:	XD127238921091204SR



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TEST REPORT
EN IEC62275:2019
Cable management systems -
Cable ties for electrical installations

Testing Laboratory

Name..... : BST Testing (Shenzhen) Co.,Ltd.
Address..... : No.7,New Era Industrial Zone, Guantian, Bao' an District,
Shenzhen, Guangdong, China
Testing location..... : BST Testing (Shenzhen) Co.,Ltd.

Applicant

name..... : Anhui Ruiste New Material Co., Ltd
Address..... : No. 88, Xiyi Avenue West and Hehuan Road South, Bowu Modern
Industrial Park, High tech Industrial Development Zone, Bozhou City, Anhui
Province, China

Test specification:

Standard..... : EN IEC62275:2019
Test procedure..... : Compliance with EN IEC62275:2019
Non-standard test method..... : N/A

Test item

Description..... : See page 1
Model and/or type reference..... : See page 1
Manufacturer : Anhui Ruiste New Material Co., Ltd
Address : No. 88, Xiyi Avenue West and Hehuan Road South, Bowu Modern
Industrial Park, High tech Industrial Development Zone, Bozhou City, Anhui
Province, China

Test item particulars : Cable ties

Material..... : Metallic ☒ Non-metallic Composite
Loop tensile strength..... : See "General product information"
Type of loop tensile strength : ☒ Type 1 Type 2
Maximum & Minimum operating temperature for application : -15°C to 85°C
Minimum temperature during installation..... : -15 °C
Contribution to fire : Flame propagating ☒ Non-flame propagating
Resistance to ultraviolet : ☒ Not declared (for white)
☒ Resistant to ultraviolet light (for black)
Resistance to corrosion : ☒ Not declared Resistant to corrosion

**Possible test case verdicts:**

- test case does not apply to the test object..... : N/A
- test object does meet the requirement : P (Pass)
- test object does not meet the requirement : F (Fail)

Testing

Date of receipt of test item..... : See cover page

Date (s) of performance of tests..... : See cover page

General remarks:

The test results presented in this report relate only to the object tested.

This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

"(see Enclosure #)" refers to additional information appended to the report. "(see appended table)" refers to a table appended to the report.

Throughout this report a comma (point) is used as the decimal separator.

Prepared by :

Reviewer :

Approved & Authorized Signer :

Lanya Li
Supervisor
APPROVED
Zhang
Manager



General product information:

Table A:

Model	Dimension WxLxT (mm)	Declared bundle Diameter (mm)	Declared loop tensile Strength (N)
2.5 x 100	2.5 x 100 x1.00	3-20	80
2.5 x 120	2.5 x 120 x1.00	3-28	80
2.5 x 140	2.5 x 140 x1.00	3-33	80
2.5 x 150	2.5 x 150 x1.00	3-34	80
2.5 x 160	2.5 x 160 x1.02	3-40	80
2.5 x 200	2.5 x 200 x1.02	3-50	80
3.6 x 100	3.6 x 100 x1.20	3-20	180
3.6 x 140	3.6 x 140 x1.20	3-33	180
3.6 x 150	3.6 x 150 x1.20	3-34	180
3.6 x 180	3.6 x 180 x1.20	3-40	180
3.6 x 200	3.6 x 200 x1.20	3-50	180
3.6 x 250	3.6 x 250 x1.20	3-65	180
3.6 x 280	3.6 x 280 x1.20	3-70	180
3.6 x 300	3.6 x 300 x1.20	3-80	180
3.6 x 350	3.6 x 350 x1.23	3-95	180
3.6 x 370	3.6 x 370 x1.23	3-100	180
4.8 x 100	4.8 x 100 x1.25	3-20	220
4.8 x 120	4.8 x 120 x1.25	3-26	220
4.8 x 150	4.8 x 150 x1.25	3-34	220
4.8 x 180	4.8 x 180 x1.25	3-45	220
4.8 x 200	4.8 x 200 x1.25	3-48	220
4.8 x 250	4.8 x 250 x1.25	3-65	220
4.8 x 280	4.8 x 280 x1.25	3-70	220
4.8 x 300	4.8 x 300 x1.25	3-80	220
4.8 x 350	4.8 x 350 x1.25	3-90	220
4.8 x 370	4.8 x 370 x1.25	3-98	220
4.8 x 380	4.8 x 380 x1.25	3-100	220
4.8 x 400	4.8 x 400 x1.35	3-105	220
4.8 x 450	4.8 x 450 x1.35	3-130	220
4.8 x 500	4.8 x 500 x1.35	3-145	220
4.8 x 550	4.8 x 550 x1.35	3-170	220
7.6 x 150	7.6 x 150 x1.48	5-34	530
7.6 x 200	7.6 x 200 x1.48	5-48	530
7.6 x 250	7.6 x 250 x1.48	5-67	530
7.6 x 300	7.6 x 300 x1.48	5-80	530
7.6 x 350	7.6 x 350 x1.48	5-90	530
7.6 x 380	7.6 x 380 x1.48	5-95	530
7.6 x 400	7.6 x 400 x1.48	5-105	530



General product information:

Table A:

Model	Dimension WxLxT (mm)	Declared bundle Diameter (mm)	Declared loop tensile Strength (N)
7.6 x 450	7.6 x 450 x1.48	5-110	530
7.6 x 500	7.6 x 500 x1.48	5-160	530
7.6 x 550	7.6 x 550 x1.55	5-163	530
9 x 400	9 x 400 x1.70	11-105	800
9 x 450	9 x 450 x1.70	11-118	800
9 x 500	9 x 500 x1.75	11-150	800
9 x 550	9 x 550 x1.75	11-160	800
9 x 600	9 x 600 x1.75	11-170	800
9 x 650	9 x 650 x1.75	11-185	800
9 x 720	9 x 720 x1.75	11-195	800
9 x 760	9 x 760 x1.75	11-210	800
9 x 800	9 x 800 x1.75	11-230	800
9 x 850	9 x 850 x1.75	11-245	800
9 x 900	9 x 900 x1.75	11-265	800
9 x 1000	9 x 1000 x1.75	11-300	800
9 x 1200	9 x 1200 x1.75	11-370	220
7.6 x 150B	7.6 x 150B x1.35	5-34	220
7.6 x 200B	7.6 x 200B x1.35	5-50	220
7.6 x 250B	7.6 x 250B x1.35	5-65	220
7.6 x 300B	7.6 x 300B x1.40	5-80	220
7.6 x 350B	7.6 x 350B x1.40	5-90	220
7.6 x 400B	7.6 x 400B x1.40	5-105	220
7.6 x 450B	7.6 x 450B x1.40	5-110	220



IEC 62275			
Clause	Requirement + Test	Result - Remark	Verdic
7	Marking and documentation		P
7.1	Each cable tie and fixing device shall be marked with the manufacturer's or responsible vendor's name or trademark and		P
	Due to the smaller size, this symbol may be marked on the packaging.	On the manual	P
7.2	Marking on cable ties, fixing devices and integral assemblies shall be easily legible, durable and indelible		N/A
	Compliance is checked by test: 15 s with water and 15 s with petroleum spirit		N/A
	After the test, the marking shall be legible to normal or corrected vision.		N/A
7.3	The manufacturer or responsible vendor shall provide in his literature information according to table 7:		P
	Classification according to material according to 6.1		P
	Loop tensile strength according to 6.2.1		P
	The manufacturer's declared mechanical strength		N/A
	Type designation according to 6.2.2 or 6.2.3		P
	maximum operating temperature for application according to 6.3.1		P
	minimum operating temperature for application according to 6.3.2		P
	minimum temperature during installation according to 6.3.3		P
	contribution to fire for non-metallic and composite according to 6.4		P
	resistance to ultraviolet light for nonmetallic and composite according to 6.5.1	For black colour	P
	resistance to corrosion for metallic and composite according to 6.5.2		N/A
	The maximum and minimum bundle diameter in mm		P
	The recommended method of installation, including the tool to be used, if any, and the load to be applied		P
	Recommendations on transport and storage		P



IEC 62275			
Clause	Requirement + Test	Result - Remark	Verdic
	Specific mounting or assembly conditions such as mounting hole sizes, material thicknesses, mounting orientations, etc. according to 5.8		N/A
	Material of the surfaces to which the adhesive fixing device is intended to be affixed according to 5.10		N/A
	Manufacturer's recommendations for surface preparations, adhesive application temperature range, and curing time prior to		N/A
8	Construction		P
	The surface of the cable tie or fixing device shall be free from burrs and similar		P
	Edges shall be smooth so as not to damage the cables or to inflict injury to the installer or		P
9	Mechanical properties		P
9.1	Requirements		P
	Cable ties, fixing devices and integral assemblies shall withstand the stresses likely to occur during installation and application.		P
	An integral assembly shall comply with the requirements for both the fixing device and the cable tie		N/A
	The cable tie shall:		P
	– be capable of fixing the maximum and minimum bundle diameter declared by the manufacturer		P
	– be able to be installed at the minimum temperature declared by the		P
	– be resistant to the effect of impact forces at the minimum operating temperature declared by the manufacturer		P
	– maintain its fixing function at the minimum and maximum application temperature declared by the manufacturer. Metallic cable ties shall maintain their fixing function when exposed to		P
	Cable ties classified according to 6.1.1 are considered only as Type 2		N/A



IEC 62275			
Clause	Requirement + Test	Result - Remark	Verdic
	The fixing device shall maintain its fixing function at the minimum and maximum application temperature		N/A
9.2	Installation test		P
	The sample shall be installed on a mandrel representing the maximum specified diameter or size and the minimum specified diameter		P
9.3	Minimum installation temperature test for cable ties		P
	If not otherwise specified, non-metallic and composite cable ties shall be dried out for 72 h at the maximum operating temperature before the following test	85°C	P
	The sample and a steel or aluminium mandrel, which reflects the minimum bundle diameter, shall be placed separately at the declared minimum temperature for installation with a tolerance of	-15°C	P
	When the sample has attained this temperature or after 2 h, whichever is the longer period, the sample is installed on the mandrel.		P
	After the test, there shall be no sign of disintegration nor shall there be any crack visible to normal or corrected vision.		P
9.4	Minimum operating temperature test for cable ties		P
	The test mandrel with the sample installed shall be placed at the declared temperature according to Table 4 with a tolerance of ± 2 °C.	-15°C	P
	Two hours after the refrigerator has recovered to the declared temperature, the sample is removed from the refrigerator and placed on a		P
	An impact shall be applied on the strap by a free fall hammer (10 ± 1) s after removal of the test assembly from the refrigerator.		P
	The energy of the hammer shall be as given in Table 6.	See appended table 9.4	P
	After the test, it has not broken open nor shall there be any crack visible to normal or corrected vision.		P
9.5	Loop tensile strength test for cable ties classified according to 6.2.2		P
9.5.1	As-received condition		P



IEC 62275			
Clause	Requirement + Test	Result - Remark	Verdic
	The test is carried out on a new set of ten cable ties. Each sample shall be installed on a test mandrel as specified in 5.9.		P
	Each sample shall be subjected to a tensile pull. No individual value of the measured maximum force shall be less than the loop tensile strength declared according to 6.2.	See appended table 9.5	P
9.5.2	After heat aging		P
	The test is carried out on a new set of ten non-metallic or composite cable ties. Each sample shall be installed on a test mandrel as specified in 5.9.		P
	The samples shall be aged in a full draft circulating-air oven with forced air at the maximum declared temperature according to Table 4 increased by 15 °C for 1 000 h. Then the samples and the mandrels shall be conditioned		P
	Each sample shall be subjected to a tensile pull. The maximum force is measured.	See appended table 9.5	P
	No individual value shall be less than 50 % of the loop tensile strength declared according to		P
9.5.3	After temperature cycling		P
	The test is carried out on a set of ten new samples. The sample shall be installed on a test mandrel as specified in 5.9.		P
	The test assembly is subjected to the following temperature cycling with transfer between each condition of 4 min to 5 min duration:		P
	a) for 120 min to 130 min, the assembly is stored in an oven at the maximum operating temperature as declared by the manufacturer according to Table 3		P
	b) for 60 min to 70 min, the assembly is then cooled down to the minimum temperature for application in normal use as declared by the manufacturer		P
	c) condition a) is repeated		P
	d) condition b) is repeated but for 18 h;		P
	e) the test conditions a) and b) are repeated		P
	f) the test assembly consisting of non-metallic and composite components shall be conditioned according to 5.2.		P



IEC 62275			
Clause	Requirement + Test	Result - Remark	Verdic
	After the cycling, there shall be no sign of disintegration nor shall there be any crack visible to normal or corrected vision.		P
	Each sample shall be subjected to a tensile pull. The maximum force is measured.	See appended table 9.5	P
	No individual value shall be less than 50 % of the loop tensile strength declared according to		P
9.6	Loop tensile strength test for cable ties classified according to 6.2.3		N/A
9.6.1	As-received condition		N/A
	The test is carried out on a new set of ten cable ties. Each sample shall be installed on a test mandrel as specified in 5.9.		N/A
	Each sample shall be subjected to a tensile pull until the load equivalent to the loop tensile strength declared by the manufacturer is reached. This load is maintained for 60 s.		N/A
	Measurements of excessive slippage		N/A
	After the tie has withstood its test load for 1 min and the first mark is still visible, the test shall be terminated.		N/A
	When the slippage is more than 1,6 mm, the tie shall be tested for an additional 5 min. If the second mark moves out of sight within 5 min, the slippage is deemed excessive.		N/A
	The cable tie shall not break and excessive slippage shall not occur as a result of the		N/A
9.6.2	After heat aging		N/A
	The test is carried out on a new set of ten non-metallic or composite cable ties. Each sample shall be installed on a test mandrel as specified in 5.9.		N/A
	The samples shall be aged in a full draft circulating-air oven with forced air at the maximum declared temperature according to Table 3 increased by 15 °C for 1 000 h. Then the samples and the mandrels shall be conditioned		N/A
	Each sample shall be subjected to a tensile pull until the load equivalent to the loop tensile strength declared by the manufacturer is reached. This load is maintained for 600 s.		N/A



IEC 62275			
Clause	Requirement + Test	Result - Remark	Verdic
	The samples shall be deemed to have passed the test if the samples perform according to the requirements in 9.6.1.		N/A
9.6.3	After temperature cycling		N/A
	The test is carried out on a new set of ten cable ties		N/A
	The sample shall be installed on a test mandrel as specified in 5.9.		N/A
	Samples shall be stabilised by being exposed to a temperature of $(23 \pm 2) ^\circ\text{C}$ and $(50 \pm 5) \%$ relative humidity between each phase of the cycle for at least 1/2 h.		N/A
	The test assembly is subjected to the following cycling:		N/A
	a) The samples shall be placed in an oven at the declared maximum operating temperature of the device for 48 h.		N/A
	b) The samples shall then be placed in a chamber at 90 % relative humidity and $40 ^\circ\text{C}$		N/A
	c) The samples shall then be placed in a cold chamber at minus $35 ^\circ\text{C}$ for 8 h.		N/A
	d) The samples shall then be placed in an oven, at the declared maximum operating temperature for 64 h.		N/A
	e) The test assembly consisting of non-metallic and composite components shall be conditioned according to 5.2.		N/A
	After the cycling, there shall be no sign of disintegration nor shall there be any crack visible to normal or corrected vision.		N/A
	Each sample shall be subjected to a tensile pull until the load equivalent to the loop tensile strength declared by the manufacturer is reached. This load is maintained for 60 s.		N/A
	The samples shall be deemed to have passed the test if the samples perform according to the requirements in 9.6.1.		N/A
9.6.4	After vibration test for metallic cable ties		N/A
	A minimum of two cable ties shall be installed around separate mandrels as described in 5.9. Each tie then shall be marked across its width adjacent to the strap's entry into the locking device.		N/A



IEC 62275			
Clause	Requirement + Test	Result - Remark	Verdic
	The ties then shall be subjected to the temperature cycle conditioning in accordance with 9.6.3 but not the loop tensile strength test.		N/A
	Upon completion of this conditioning, the mandrels shall be securely mounted to the vibration table such that the direction of the vibration is parallel to the plane of the circular configuration of the assembled tie. See Figure		N/A
	The mandrels then shall be subjected to the following vibration test in accordance with IEC 60068-2-6		N/A
	Each sample shall be subjected to a tensile pull until the load equivalent to the loop tensile strength declared by the manufacturer is reached. This load is maintained for 60 s.		N/A
	The samples shall be deemed to have passed the test if the samples perform according to the requirements in 9.6.1 including the measurement of the slippage from the original		N/A
9.7	Mechanical strength test for fixing devices and integral assemblies		N/A
9.7.1	As-received condition		N/A
	The fixing device or the integral assembly shall be fixed firmly to a rigid support. The adhesive fixing device shall be adhered to a rigid panel		N/A
	When testing for mechanical strength:		N/A
	- For a separately supplied fixing device, an appropriate cable tie shall be assembled to the fixing device		N/A
	- A separately supplied fixing device and an integral assembly shall be installed on a non-split mandrel		N/A
	- For integral assemblies, the test fixture shall allow for self-alignment of the test load with the integral assembly during the test. In order to achieve self-alignment of the test load, a sliding mounting table shall be used. The sliding mounting table shall be able to move without a significant friction. If during the test the self-alignment does not occur, the test is considered invalid.		N/A
	- For a separately supplied fixing device and for an integral assembly according to 6.2.2, each sample shall be subjected to a tensile	See appended table 9.7	N/A



IEC 62275			
Clause	Requirement + Test	Result - Remark	Verdic
	No individual value of the measured maximum force shall be less than the declared mechanical strength		N/A
	- For a separately supplied fixing device and for an integral assembly classified according to 6.2.3, each sample shall be subjected to a tensile pull until the mechanical strength declared by the		N/A
	This load is maintained for 60 s.		N/A
	When testing for loop tensile strength:		N/A
	- For an integral assembly according to 6.2.2, each sample shall be subjected to a tensile		N/A
	No individual value of the measured maximum force shall be less than the declared loop tensile strength		N/A
	- For an integral assembly classified according to 6.2.3, each sample shall be subjected to a tensile pull until the loop tensile strength declared by the manufacturer is reached.		N/A
	This load is maintained for 60 s.		N/A
	After the test, the fixing device or the integral assembly shall show no sign of disintegration nor shall there be any crack visible to normal or corrected vision.		N/A
	During the test:		N/A
	– fixing device or the integral assembly, detaches from the rigid support, it is not considered a failure		N/A
	– adhesive fixing device or the integral assembly detaches from the rigid support, this is considered a failure		N/A
9.7.2	After heat aging		N/A
	The fixing device or the integral assembly shall be fixed to a rigid support. The adhesive fixing device shall be adhered to a rigid panel.		N/A
	When testing for mechanical strength:		N/A



IEC 62275			
Clause	Requirement + Test	Result - Remark	Verdic
	- Separately supplied fixing devices shall be aged in a full draft circulating-air oven at the maximum declared temperature according to Table 4 increased by 15 °C for 1000 h. Then the fixing device shall be conditioned according to 5.2. An appropriate cable ties shall be assembled to the fixing device and then to a non-split steel or aluminium mandrel		N/A
	- An integral assembly shall be installed on a non- split mandrel and shall be aged in a full draft circulating-air oven at the maximum declared temperature according to Table 4 increased by 15 °C for 1 000 h. Then the assembly shall be conditioned according to		N/A
	- For both separately supplied fixing devices and integral assemblies, a split mandrel can be used as long as the two parts are linked together to operate as a solid mandrel.		N/A
	- For integral assemblies, the test fixture shall allow for self-alignment of the test load with the integral assembly during the test. In order to achieve self-alignment of the test load, a sliding mounting table shall be used. The sliding mounting table shall be able to move without a significant friction. If during the test the self- alignment does not occur, the test is considered invalid.		N/A
	- For a separately supplied fixing device and for an integral assembly according to 6.2.2, each sample shall be subjected to a tensile	See appended table 9.7	N/A
	No individual value of the measured maximum force shall be less than 50% of the declared mechanical strength.		N/A
	- For a separately supplied fixing device and for an integral assembly classified according to 6.2.3, each sample shall be subjected to a tensile pull until the mechanical strength declared by the		N/A
	This load is maintained for 60s.		N/A
	When testing for loop tensile strength:		N/A



IEC 62275			
Clause	Requirement + Test	Result - Remark	Verdic
	- An integral assembly shall be installed on a non- split mandrel. The assembly shall be aged in a full draft circulating-air oven at the maximum declared temperature according to Table 4 increased by 15 °C for 1 000 h. Then the assembly shall be conditioned according		N/A
	- For an integral assembly according to 6.2.2, each sample shall be subjected to a tensile		N/A
	No individual value of the measured maximum force shall be less than 50% of the declared loop tensile strength		N/A
	- For an integral assembly classified according to 6.2.3, each sample shall be subjected to a tensile pull until the loop tensile strength declared by the manufacturer is reached.		N/A
	This load is maintained for 60s.		N/A
	After the test, the fixing device or the integral assembly shall show no sign of disintegration nor shall there be any crack visible to normal or corrected vision.		N/A
	During the test:		N/A
	– fixing device or the integral assembly, detaches from the rigid support, it is not		N/A
	– adhesive fixing device or the integral assembly detaches from the rigid support, this is considered a failure		N/A
9.7.3	After temperature cycling		N/A
	The fixing device or the integral assembly shall be fixed firmly to a rigid support. The adhesive fixing device shall be adhered to a rigid panel		N/A
	When testing for mechanical strength:		N/A
	- Separately supplied fixing devices are subjected to the temperature cycling as		N/A
	- An integral assembly shall be installed on a non- split mandrel according to 5.9. The assembly shall be subjected to the temperature cycling as specified in 9.5.3.		N/A



IEC 62275			
Clause	Requirement + Test	Result - Remark	Verdic
	- For integral assemblies, the test fixture shall allow for self-alignment of the test load with the integral assembly during the test. In order to achieve self-alignment of the test load, a sliding mounting table shall be used. The sliding mounting table shall be able to move without significant friction. If during the test the self- alignment does not occur, the test is considered invalid.		N/A
	- For a separately supplied fixing device and for an integral assembly according to 6.2.2, each sample shall be subjected to a tensile	See appended table 9.7	N/A
	No individual value of the measured maximum force shall be less than 50% of the declared mechanical strength.		N/A
	- For a separately supplied fixing device and for an integral assembly classified according to 6.2.3, each sample shall be subjected to a tensile pull until the mechanical strength declared by the		N/A
	This load is maintained for 60s.		N/A
	When testing for loop tensile strength:		N/A
	- An integral assembly shall be installed on a non- split mandrel according to 5.9. The assembly shall be subjected to the temperature cycling as specified in 9.5.3.		N/A
	- For an integral assembly according to 6.2.2, each sample shall be subjected to a tensile		N/A
	No individual value of the measured maximum force shall be less than 50% of the declared loop tensile strength		N/A
	- For an integral assembly classified according to 6.2.3, each sample shall be subjected to a tensile pull until the loop tensile strength declared by the manufacturer is reached.		N/A
	This load is maintained for 60s.		N/A
	After the test, the fixing device or the integral assembly shall show no sign of disintegration nor shall there be any crack visible to normal or corrected vision.		N/A
	During the test:		N/A



IEC 62275			
Clause	Requirement + Test	Result - Remark	Verdic
	– the fixing device or the integral assembly, excluding the adhesive ones, detaches from the rigid support without signs or disintegration, cracking or the like, it is not considered a failure but the test shall be repeated with a more appropriate fixing		N/A
	– the adhesive fixing device or the adhesive integral assembly detaches from the rigid support, this is considered a failure		N/A
10	Contribution to fire		P
	Metallic cable ties and integral assemblies with a non-metallic or organic coating, as well as non-metallic and composite cable ties and integral assemblies classified according to 6.4.2 shall have adequate resistance to flame		P
	The sample shall be installed on a solid steel or aluminium mandrel with dimensions as specified in 5.9.		P
	Using an arrangement as shown in Figure 7, the sample shall be subjected to the needle flame test as specified in IEC 60695-11-5, with the following additional information:		P
	– the flame shall be applied to the face of the sample for a maximum of 30 s or until such time as the sample has separated from the		P
	– the underlying layer shall consist of three layers of tissue paper of dimensions such that product material or broken product falls on it		P
	The sample shall be deemed to have passed the test if:		P
	– 30 s after the test flame is removed, there is no flaming of the sample, and	No flame	P
	– there is no ignition of the tissue paper.		P
	For a metallic cable tie having a non-metallic coating, and classified as non-flame propagating according to 6.4.2, samples having a combination of the minimum coating thickness and minimum metal thickness, and samples having a combination of the maximum coating thickness and minimum metal		N/A
11	Environmental influences		P
11.1	Resistance to ultraviolet light	For black colour	P



IEC 62275			
Clause	Requirement + Test	Result - Remark	Verdic
11.1.1	For cable ties and fixing devices classified according to 6.5.1.2 shall be resistant to ultraviolet light		P
	a set of ten samples installed on a mandrel according to 5.9 shall be subjected to ultraviolet light conditioning according to		P
	When the product is provided in more than one colour, the colour having the heaviest organic pigment loading shall be subjected to		N/A
	Samples shall be mounted on the inside of the cylinder in the ultraviolet light apparatus so that the samples do not touch each other. Mandrels for cable ties shall be positioned in such a way that the cable tie locking device is placed in the position facing the light source.		P
	If the fixing device, cable tie and mandrel assembly is not able to be mounted as described in the ultraviolet light apparatus, the fixing device is permitted to be separately exposed. After exposure, the samples shall be able to be assembled for conducting the test.		N/A
	After the first 250 h of exposure, and after each subsequent 250 h exposure period, the specimens are to be repositioned in the equipment in order to compensate for exposure variability due to placement with respect to the light source.		P
11.1.2	The samples are to be exposed for 1 000 h to xenon-arc, method A, cycle 1 in accordance with ISO 4892-2:2013. There shall be continuous exposure to light and intermittent exposure to water spray. The cycle shall consist of 102 min without water spray and 18		P
11.1.3	Ultraviolet light conditioning is not required for a metallic cable tie or fixing device or for a metallic cable tie having a non-metallic coating when the non-coated version complies with the requirements in 11.2.		P
11.1.4	Following the exposure in 11.1.2 and stabilisation for a period according to 5.2		P



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Clause	Requirement + Test	Result - Remark	Verdic
	Each sample of a cable tie, a fixing device that is integrally moulded with a cable tie, or a fixing device supplied separately and classified according to 6.2.2, shall be subjected to a tensile pull. No individual value shall be less than 50 % of the loop tensile strength declared according to 6.2 or the declared mechanical strength for a fixing device	See appended table 11.1	P
	Each sample of a cable tie, a fixing device that is integrally moulded with a cable tie, or a fixing device supplied separately and classified according to 6.2.3, shall be subjected to a tensile pull until the load equivalent to the loop tensile strength for a cable tie or mechanical strength for a fixing device declared by the manufacturer is reached. This load is		N/A
	The samples shall be deemed to have passed the test if the samples perform according to the requirements in 9.6.1.		N/A
	After the test, there shall be no sign of disintegration nor shall there be any crack visible to normal or corrected vision.		N/A
	Each sample of a fixing device shall be subjected to a tensile pull until the mechanical strength declared by the manufacturer is reached. This load is maintained for 60 s.		N/A
	After the test, there shall be no sign of disintegration nor shall there be any crack visible to normal or corrected vision.		N/A
11.2	Resistance to corrosion		N/A
	Cable ties and fixing devices classified as resistant to corrosion according to 6.5.2.2 shall have adequate resistance to corrosion.		N/A
	Samples shall be exposed to a neutral salt spray (NSS) in accordance with ISO 9227:2017 for 192 h followed by 12 h at (40±2) °C. Samples of non- metallic coated devices shall be subjected to heat age conditioning in accordance with 9.5.2, 9.6.2 or 9.7.2 as appropriate before exposure to the		N/A
	The samples shall then be rinsed in demineralised water. Metallic cable ties and fixing devices shall be dried. Composite cable ties and fixing devices shall be stabilised		N/A



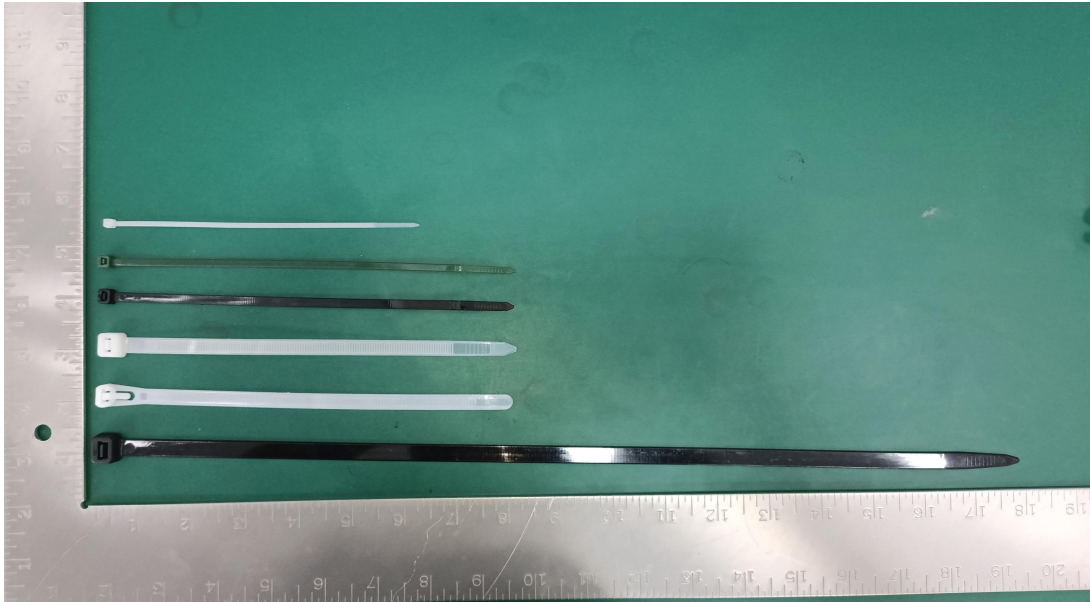
IEC 62275			
Clause	Requirement + Test	Result - Remark	Verdic
	After the test, the samples shall show no cracks visible to normal or corrected vision. Any traces of rust on sharp edges and a yellowish film may be removed by rubbing. There shall be no red rust visible to normal or		N/A
	Each sample of a composite cable tie classified according to 6.2.2 (Type 1), shall be subjected to the tensile pull according to 9.5.1. No individual value shall be less than 50 % of the loop tensile strength declared	See appended table 11.2	N/A
	Each sample of a metallic or composite cable tie classified according to 6.2.3 (Type 2), shall be subjected to the tensile pull according to 9.6.1 until the load equivalent to the loop tensile strength declared by the manufacturer is reached. This load shall be maintained for 60 s.		N/A
	The samples shall be deemed to have passed the test if the samples perform according to the requirements in 9.6.1.		N/A
	Each sample of a fixing device shall be subjected to the tensile pull according to 9.7.1.		N/A
	After the test, there shall be no sign of disintegration of a fixing device or any crack visible to normal or corrected vision		N/A
	Testing of products constructed of stainless steel having a chromium content of 16% or more is not required.		N/A
	A metallic cable tie having a non-metallic coating that is depended upon to provide resistance to corrosion, and that is declared as having resistance to ultraviolet light, shall be subjected to the conditioning in 11.1 followed by the appropriate requirements in 11.2 for metallic		N/A
	The requirements in 11.2 are not applicable for a metallic cable tie with a non-metallic coating when the uncoated version has been determined to meet the requirements in 11.2.		N/A
12	Electromagnetic compatibility		$\frac{3}{4}$
	Products covered by this document are, in normal use, passive with respect to electromagnetic influences (emission and immunity). Therefore, no tests have been		N/A



IEC 62275				
Clause	Requirement + Test		Result - Remark	Verdic
9.5	TABLE: Loop tensile strength test for cable ties classified according to			P
9.5.1	As-received condition			
	Sample number		10 pcs / each set	—
	Model	Diameter of metallic mandrel (mm)	Declared loop tensile strength (N)	Minimum value, in measured max. force among each
Normal type:				
	2.5 x 100	20	80	131
	2.5 x 100	20	80	148
	2.5 x 200	38	80	129
	2.5 x 200	38	80	114
	3.6 x 150	20	180	213
	3.6 x 150	20	180	260
	3.6 x 370	38	180	237
	3.6 x 370	38	180	209
	4.8 x 200	38	220	251
	4.8 x 200	38	220	362
	4.8 x 500	38	220	340
	4.8 x 500	38	220	324
	7.6 x 200	38	530	573
	7.6 x 200	38	530	704
	7.6 x 550	38	530	690
	7.6 x 550	38	530	680
	9 x 400	38	800	849
	9 x 400	38	800	889
	9x 1200	38	800	849
	9x 1200	38	800	943
Reusable type:				
	7.6 x 200B	38	220	386
	7.6 x 300B	38	220	478



ANNEX A:Photo-documentation



End of the report