


Technical Construction File EN IEC 62275:2019 Cable management systems - Cable ties for electrical installations	
Report reference No.....	TLZJ22022536417
Compiled by (+ signature).....	Stephen Zhang / Test Engineer
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Date of issue.....	February 28,2022
Reviewing laboratory.....	Shanghai Global Testing Services Co., Ltd.
Reviewing location.....	Floor 2nd, Building D-1, No. 128, Shenfu Road, Minhang District, Shanghai, China.
Applicant.....	Zhejiang Runbo Plastic Co., Ltd.
Address.....	Houheng Village, Liushi Town, Yueqing City, Wenzhou, Zhejiang, China
Manufacturer.....	Zhejiang Runbo Plastic Co., Ltd.
Address.....	Houheng Village, Liushi Town, Yueqing City, Wenzhou, Zhejiang, China
Factory.....	The same as Manufacturer
Address.....	The same as Manufacturer
Standard.....	<input checked="" type="checkbox"/> EN IEC 62275:2019
Review Report Form No.....	62275
TRF originator.....	GTS
Master TRF.....	Reference No. EN IEC 62275
Review procedure	GTS
Type of Review object.....	Nylon Cable Tie
Trademark.....	-
Model/type reference.....	2.5×(60-200), 3.6×(100-400), 4.8×(100-650), 7.6×(150-760), 9.0×(400-1500), 12×(300-750)
Main Model.....	4.8×200
Rating.....	/



<p>Possible review case verdicts:</p> <ul style="list-style-type: none"> - review case does not apply to the test object..... : N(.A.) - review object does meet the requirement..... : P(ass) - review object does not meet the requirement..... : F(ail) 	
<p>General remarks:</p> <p>”(see remark #)” refers to a remark appended to the report.</p> <p>”(see appended table)” refers to a table appended to the report.</p> <p>Throughout this report a comma is used as the decimal separator.</p> <p>The review results presented in this report relate only to the object reviewed.</p> <p>This report shall not be reproduced except in full without the written approval of the third party.</p>	
<p>Testing:</p> <p>Date of receipt of review item:</p> <p>Date(s) of performance of review:</p>	<p>February 25,2022</p> <p>February 25,2022 to February 28,2022</p>
<p>General product information:</p> <p>Nylon Cable Tie</p>	
<p>Summary of reviewing:</p> <p>This review report includes:</p> <p>Annex I: 1 page(s) of photo documentation.</p>	
<p>Copy of marking plate</p>	
<p>Nylon Cable Tie,</p> <p>Model 4.8×200</p> <p>Zhejiang Runbo Plastic Co., Ltd.</p>	<p>Marking</p> 

EN IEC 62275:2019			
Clause	Requirement - Test	Result - Remark	Verdict
4	General requirements		-
	A NYLON CABLE TIE and a fixing device shall withstand the stresses likely to occur during recommended installation practice and perform under the conditions of classifications in Clause 6 as declared by the manufacturer.		P
	Compliance is checked by carrying out all the appropriate tests specified.		P
5	General notes on tests		-
5.1	Tests according to this standard are type tests. Unless otherwise specified, tests are carried out with the Cable ties and their associated fixing devices, where available, installed as in normal use according to the manufacturer's instructions.	Type test	P
5.2	Unless otherwise specified, tests on non-metallic and composite components shall commence when the samples have been removed from their packaging and then stabilised at a temperature of $(23 \pm 5)^\circ\text{C}$ and at a relative humidity of $(50 \pm 5)\%$, for a period as indicated in Table 1.	$23^\circ\text{C} \pm 2^\circ\text{C}$, $50\% \pm 5\%$	P
	The reference thickness of a NYLON CABLE TIE is measured at the midpoint of the strap. The reference thickness of a fixing device shall be the smallest cross section in the area that interfaces with the NYLON CABLE TIE or as declared by the manufacturer		P
	When the equilibrium moisture content for a material at $(23 \pm 5)^\circ\text{C}$ and $(50 \pm 5)\%$ relative humidity is determined through a method agreed to by the manufacturer and the testing laboratory, the stabilisation time in Table 1 may be reduced when all of the following conditions are met:		---
	a) the product's moisture content in the as-received condition and after each appropriate conditioning is measured using a calibrated moisture analyzer device		P
	b) the samples are subjected to exposure to a constant temperature not exceeding 50°C and a relative humidity not exceeding 80% ;		P
	c) the product's equilibrium moisture content at $(23 \pm 5)^\circ\text{C}$ and $(50 \pm 5)\%$ relative humidity is verified using a calibrated moisture analyzer device. This verification process is repeated until equilibrium is determined		P
5.3	Unless otherwise specified, the tests shall be carried out at an ambient temperature of $(23 \pm 5)^\circ\text{C}$ and with a relative humidity of between 40% and 60% .		P

5.4	<p>Unless otherwise specified, three new samples are submitted to the tests and the requirements are satisfied if all the tests are met.</p> <p>If only one of the samples does not satisfy a test due to an assembly or manufacturing fault, that test and any preceding one which may have influenced the results of the test shall be repeated and also the tests which follow shall be made in the required sequence on another full set of samples, all of which shall comply with the requirements.</p>		P
5.5	<p>When toxic or hazardous processes are used, due regard shall be taken of the safety of persons within the test area.</p>		N/A
5.6	<p>Unless otherwise specified, the cross-head speed of a tensile machine used during the tests shall be $(25 \pm 2,5)$ mm/min.</p>		P
5.7	<p>Where required for heat ageing, a full draft circulating-air oven as specified in IEC 60216-4-1 shall be used.</p>		P
	<p>A portion of the air shall be allowed to re-circulate and a substantial amount of air shall be admitted continuously to maintain the normal air content surrounding the samples.</p> <p>The oven shall be adjusted to achieve more than 5 complete fresh air change per hour</p>		P
5.8	<p>A fixing device that is integral to a NYLON CABLE TIE shall comply with the requirements for both the fixing device and the NYLON CABLE TIE. The integral assembly shall be classified according to 6.2.2 or 6.2.3 and subjected to the conditionings for the NYLON CABLE TIE prior to conducting the mechanical strength test for the fixing device according to 9.7</p>		P
	<p>A fixing device, the performance of which is dependent on the mounting hole size, the thickness of the material sheet to which it is to be mounted, or the mounting orientation declared by the manufacturer according to 7.3 f), shall comply with all applicable tests when the device is assembled to the minimum and maximum thickness of each mounting surface, in the largest hole size, and in each intended mounting orientation declared by the manufacturer</p>		P
	<p>When it can be determined that a particular mounting orientation represents the most onerous condition, the results of the tests in that orientation may represent all mounting orientations.</p>		P
5.9	<p>Unless otherwise specified, when conducting the tests on Cable ties in Clause 9, the samples shall be installed according to the manufacturer's instructions on a steel or aluminium mandrel which has a diameter A according to Table 2:</p>		P
	<p>If the minimum declared diameter of the NYLON CABLE TIE is greater than the diameter of the test mandrel specified in Table 2, then a test mandrel that has the minimum diameter as declared by the manufacturer shall be used.</p>		N/A

	For the loop tensile strength tests, the mandrel shall be split in two equal parts and the Cable ties positioned as shown in Figure 2a).		P
	The excess end (tail) of the NYLON CABLE TIE is permitted to be cut off after assembly, except in the tests where marking is required for the purpose of measurement (see 9.6).		P
	The use of separate steel or aluminum conditioning mandrels is permitted. The conditioning mandrels need not be split but shall have a diameter approximately equivalent to the appropriate test mandrel to allow transfer of the sample to the test mandrel. Conditioned samples shall be carefully transferred to the appropriate test mandrel for carrying out the loop tensile test. Where it has been determined that the transfer of the samples from the conditioning mandrel to a test mandrel has influenced the test results, an additional sample set shall be conditioned and tested		P

6	Classification		P
6.1	According to material		P
6.1.1	Metallic component		N/A
6.1.2	Non-metallic component	Non-metallic	P
6.1.3	Composite component		N/A
6.2	According to loop tensile strength for Cable ties As given in Table 2.		P
6.2.1	Loop tensile strength for Cable ties		P
6.2.2	Type 1 – Retains at least 50 % of declared loop tensile strength for Cable ties and mechanical strength for fixing devices after test conditions		N/A
	Type 2 – Retains 100 % declared loop tensile strength after test conditions		P
6.3	According to temperature		P
6.3.1	According to maximum operating temperature for application given in Table 4		P
	Additional ratings above 150 °C may be declared at the manufacturer’s discretion		N/A
6.3.2	According to minimum operating temperature for application given in Table 5		P
6.3.3	According to minimum temperature during installation as declared by the manufacturer		P
6.4	According to contribution to fire for non-metallic and composite Cable ties only		P
6.4.1	Flame propagating		P
6.4.2	Non-flame propagating		P
6.5	According to environmental influences		P
6.5.1	According to resistance to ultraviolet light for non-metallic and composite components		P
6.5.1.1	Not declared		N/A
6.5.1.2	Resistant to ultraviolet light		N/A
6.5.2	According to resistance to corrosion for metallic		P

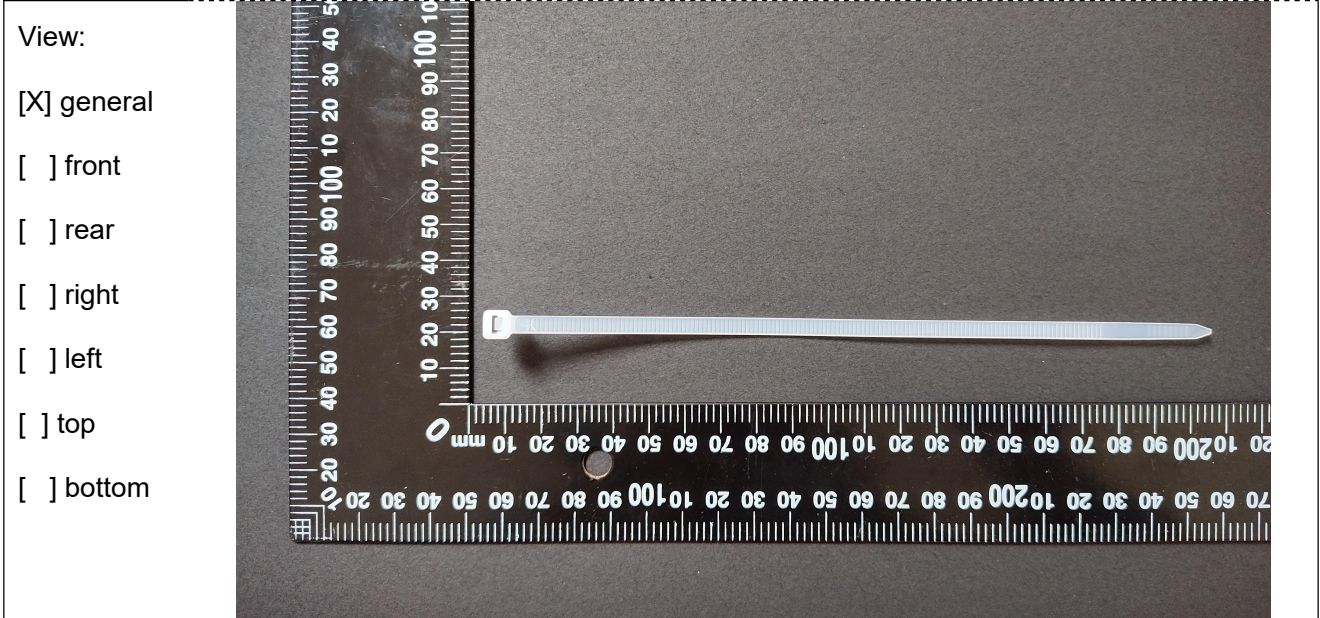
	and composite components		
6.5.2.1	Not declared		N/A
6.5.2.2	Resistant to corrosion		P
7	Marking and documentation		P
7.1	Each NYLON CABLE TIE and fixing device shall be marked with the manufacturer's or responsible vendor's name or trademark and identifying symbol		P
	Where it is not possible, for example, due to the small size of a NYLON CABLE TIE or fixing device to mark on it the identifying symbol, then this symbol may be marked on the packaging.		P
7.2	Marking on the Cable ties or fixing device shall be clearly legible and durable.	Clearly legible and durable	P
	Marking made by moulding, pressing or engraving is not subjected to this test.		P
	After the test, the marking shall be legible to normal or corrected vision.		P
7.3	The manufacturer or responsible vendor shall provide in his literature:		P
8	Construction		P
	The surface of the NYLON CABLE TIE or fixing device shall be free from burrs and similar inconsistencies, and edges shall be smooth so as not to damage the cables or to inflict injury to the installer or user.	No burrs, edge smooth	P
9	Mechanical properties		P
9.1	Requirements		P
	The NYLON CABLE TIE and/or its associated fixing device shall withstand the stresses likely to occur during installation and application.		P
9.2	Installation test		P
	The sample installed on a mandrel representing the maximum specified diameter or size and the minimum specified diameter or size to determine that it is able to be installed in the intended manner, as specified by the manufacturer.		P
9.3	Minimum installation temperature test for Cable ties		P
9.4	Minimum operating temperature test for Cable ties		P
9.5	Loop tensile strength test for Cable ties classified according to 6.2.2		P
9.6	Loop tensile strength test for Cable ties classified according to 6.2.3		P
9.7	Mechanical strength test for fixing devices		P
10	Contribution to fire		P
	Non-metallic and composite Cable ties classified according to 6.4.2 shall have adequate resistance to flame propagation.		P
	The sample shall be installed on a solid steel or aluminium mandrel with dimensions as specified in 5.9. The NYLON CABLE TIE shall be mounted		P

	manually without tension. Then, the remaining end of the tie shall be cut away		
	Using an arrangement as shown in Figure 6, the sample shall be submitted to the needle flame test as specified in IEC 60695-11-5:2004, 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 mandrel		P
11	Environmental influences		P
11.1	Resistance to ultraviolet light		N/A
11.2	Resistance to corrosion		P
12	Electromagnetic compatibility		N/A
	Products covered by this standard are, in normal use, passive with respect to electromagnetic influences (emission and immunity).		N/A

- End of Review Report -

Type of equipment, model: Nylon Cable Tie,
2.5×(60-200), 3.6×(100-400), 4.8×(100-650), 7.6×(150-760),
9.0×(400-1500), 12×(300-750)

Details of:



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