



# Technical specification



## Cable ties 22 in **U61X**

### Description

- For tying of cables and conduits in outdoor and indoor installations. <sup>(1)</sup>
- Complete product family for all kind of applications.
- Hand thread, easier mounting at site.
- High tensile strength.
- Resistance to UVs according to the standard EN 62275:2019.
- UL approval both for raw material and finished product.
- Inside teeth.
- Own raw material. Insulating halogen free material.
- RoHS-Compliant
- Colour: black.

### Quality Marks <sup>(2)</sup>



(3)

EN 62275:2019  
Licence n°: 030/001929



EN 62275:2019  
Licence n°:  
NF004\_1005/A3



EN 62275:2019  
Licence n°: 40011920



UL 62275:2016  
File E 75725 (M) Up to  
85°C



UL 62275:2016  
File E 75725 (M) Up to  
85°C



GOST R IEC 62275:2015  
POCC ES.AM05.H10276

### Approvals <sup>(2)</sup>



Certificat d'Approbation de  
type n°  
2535D/04934/H0/BV



Type approval certificate  
TAE0000115



(5)

According to NIDSA  
5.70.12.01



Our quality management system complies with the requirements of UNE-EN ISO 9001:2015 for the design, production and commercialization of Unex Systems.

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TECHNICAL  
ASSISTANCE

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## Characteristics

EN 62275:2019

Component	Non metallic.
Minimum installation temperature	-30°C
Service temperature	-40°C to +105°C
Contribution to fire	Non-flame propagation.
Resistance to UVs	Resistant.
Resistance to traction (minimum tensile strength)	<ul style="list-style-type: none"> <li>• 8,16 Kg for cable ties of 2,5 mm</li> <li>• 13,6 Kg for cable ties of 3,6 mm</li> <li>• 22,6 Kg for cable ties of 4,8 mm</li> <li>• 54,4 Kg for cable ties of 7,6 mm</li> <li>• 117,3 Kg for cable ties of 12,7 mm</li> <li>• Type 1: cable ties of 2,5 mm, 3,6mm and 12,7mm.</li> <li>• Type 2: cable ties of 4,8 mm and 7,6mm.</li> </ul>
Max./Min. application diameter	<ul style="list-style-type: none"> <li>• 2221-0: 22 mm / 1,6 mm</li> <li>• 2225-0: 50 mm / 1,6 mm</li> <li>• 2233-0: 32 mm / 1,6 mm</li> <li>• 2235-0: 50 mm / 1,6 mm</li> <li>• 2237-0: 76 mm / 1,6 mm</li> <li>• 2244-0: 45 mm / 1,6 mm</li> <li>• 2247-0: 76 mm / 1,6 mm</li> <li>• 2249-0: 102 mm / 1,6 mm</li> <li>• 2271-0: 50 mm / 4,8 mm</li> <li>• 2272-0: 76 mm / 4,8 mm</li> <li>• 2273-0: 102 mm / 4,8 mm</li> <li>• 2275-0: 150 mm / 4,8 mm</li> <li>• 2278-0: 203 mm / 4,8 mm</li> <li>• 2296-0: 298 mm / 70 mm</li> <li>• 2298-0: 362 mm / 70 mm</li> </ul>

MS 3367



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### MS 3367

Dimensions <sup>(6)</sup>	<ul style="list-style-type: none"> <li>• 2221-0: MS 3367-4</li> <li>• 2225-0: -</li> <li>• 2233-0: MS 3367-5</li> <li>• 2235-0: -</li> <li>• 2237-0: -</li> <li>• 2244-0: MS 3367-1</li> <li>• 2247-0: MS 3367-7</li> <li>• 2249-0: MS 3367-2</li> <li>• 2271-0: -</li> <li>• 2272-0: -</li> <li>• 2273-0: MS 3367-3</li> <li>• 2275-0: -</li> <li>• 2278-0: MS 3367-6</li> <li>• 2296-0: -</li> <li>• 2298-0: -</li> </ul>
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## Compulsory regulations

### 2014/35/EU European Directive

CE Marking	Conformity with standard EN 62275:2019.
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## Characteristics of U61X (black colour) raw material

- Base raw material: Polyamide 6.6 weather-stabilized (black colour)
- Halogen contents according to EN 50642: 2018: Halogen free
- Silicone contents: 0,025%
- Phthalate contents according to ASTM D2124-99:2004: <0,01% <sup>(7)</sup>
- UL flammability tests on plastic material according to ANSI/UL 94: 1990: degree UL94 V2
- Behaviour to chemicals exposure: Resistant to the most common:
  - Hydroxides
  - Oils
  - Fats
  - Carbon hydrides
  - Acetone
  - Chlorated solvents

The zinc of the galvanized affects the life utility of polyamide 6.6 in front of aggressive agents (chemical agent and UVs). <sup>(8)</sup>

- Outdoor performance: Weatherized.  
Suitable for outdoor use according to ASTM D 6779-07
- Bacteria and fungus: Good resistance to bacteria, fungus and insects attack. <sup>(8)</sup>
- UL Approval: UL File E7317944
- Classifications according to ASTM D6779:2003: PA 0192



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### Notes

1. Due to the variety of factors affecting the performance of the cable ties under chemical agents (concentration, temperature, Uvs, mounting way, etc), the particular atmosphere of certain installations must be individually studied with a specific test.
2. Except for new part numbers, which are under process of obtaining quality marks and approvals. See updated information of each part number on [www.unex.net](http://www.unex.net)
3. 2296-0 and 2298-0 Licence n°: 030/002436
4. Cable ties width 4,8 and 7,6 mm
5. Certified part numbers: 2221-0; 2225-0; 2233-0; 2235-0; 2237-0; 2244-0; 2247-0; 2247-0; 2249-0; 2271-0; 2272-0; 2273-0; 2278-0.
6. Cable ties without MS designation fulfill the conditions set in the standards for items with the same width, except for the length.
7. Detection limit for the analytical technique applied.
8. All features marked are based on random tests of the material in the manufacture of our products. However, they only reflect the values accepted by the raw material manufacturers, which are provided only as information and guidance.

\* It is recommended to keep the bag closed until use.

\*\* All information contained herein is completely objective and is the result of a wide experience in satisfying our costumers' requirements . For more details, please visit our website.

\*\*\* Unex aparellaje eléctrico, S.L. reserve the right to modify any characteristics of the products manufactured. This document is an uncontrolled copy and will not be updated if its content changes.

27/12/2022



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