

# TYPE APPROVAL CERTIFICATE

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**This is to certify:**

**That the Cable ties**

with type designation(s)  
**Cable ties Series 22**

Issued to

**UNEX APARELLAJE ELECTRICO, S.L.**  
**L'Hospitalet de Llobregat Barcelona, Spain**

is found to comply with  
**DNV GL rules for classification – Ships and offshore units**

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**Application :**

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

This Certificate is valid until **2020-10-13**.

Issued at **Høvik** on **2016-03-21**

DNV GL local station: **Barcelona**

Approval Engineer: **Marta Alonso Pontes**

for **DNV GL**

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**Marit Laumann**  
**Head of Section**

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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.

## Product description

Cable ties Series 22 :

| Type                            | Indoor/Outdoor | Identification | Width (mm) |
|---------------------------------|----------------|----------------|------------|
| Polyamide natural (PA 6.6) U60X | Indoor         | 22XX           | 2,5-7,6    |
| Polyamide black (PA 6.6W) U61X  | Both           | 22XX-0         | 2,5-12,7   |
| Polyamide grey (PA 6.6) U60X    | Indoor         | 22XX-3         | 3,6-4,8    |
| Polypropylen grey (PP)          | Indoor         | 22XX-1         | 4,8-7,6    |

Technical data :

| Article No.                  | Type 1,2,3<br>Tensile strength (kg) | Type 4<br>Tensile strength (kg) | Max. Bundle Ø<br>(mm) |
|------------------------------|-------------------------------------|---------------------------------|-----------------------|
| 2221 or (-0)                 | 8,16                                |                                 | 22                    |
| 2225 or (-0)                 | 8,16                                |                                 | 50                    |
| 2233 or (-0) or (-3)         | 13,6                                |                                 | 32                    |
| 2235 or (-0)                 | 13,6                                |                                 | 50                    |
| 2237 or (-0)                 | 13,6                                |                                 | 76                    |
| 2244 or (-0) or (-3) or (-1) | 22,6                                | 13,6                            | 45                    |
| 2247 or (-0) or (-3) or (-1) | 22,6                                | 13,6                            | 76                    |
| 2249 or (-0)                 | 22,6                                |                                 | 102                   |
| 2271 or (-0)                 | 54,4                                | 36,7                            | 50                    |
| 2272 or (-0)                 | 54,4                                | 36,7                            | 76                    |
| 2273 or (-0)                 | 54,4                                | 36,7                            | 102                   |
| 2278 or (-0)                 | 54,4                                |                                 | 203                   |
| 2296-0                       | 117                                 |                                 | 298                   |
| 2298-0                       | 117                                 |                                 | 362                   |

## Application/Limitation

- maximum operating temperature for application: +85°C
- minimum operating temperature for application: -40°C
- minimum temperature during installation: -30°C

## Type Approval documentation

### Tests carried out

Tests in accordance with IEC 62275

### Marking of product

Company Name, Type designation

### 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 Production Sample Tests (PST) and Routines (RT) checked (if not available tests according to PST and 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.

Assessment to be performed at least every second year.



Job Id: **262.1-022052-1**  
Certificate No: **TAE0000115**

END OF CERTIFICATE