

**ANNEX II**  
**ATTACHMENT N° 3**  
**TRAINING SHIP FRIGATE A.R.A “LIBERTAD”**  
**TECHNICAL SPECIFICATIONS OF CABUYERIA**  
**VALPARAISO-CHILE**

**CHARACTERISTICS OF THE REQUIRED PRODUCTS:**

N°	DESCRIPCIÓN	UOM	Qty
1	<p><b>Description:</b> ROPES; MATERIAL: POLYESTER, DIAMETER: 14 mm, TENSION RESISTANCE: 3000 Kg.</p> <p>Remarks: According to general remarks</p>	MT	440
2	<p><b>Description:</b> ROPES; MATERIAL: POLYESTER, DIAMETER: 22 mm, TENSION RESISTANCE: 12600 Kg.</p> <p>Remarks: According to general remarks</p>	MT	440
3	<p><b>Description:</b> ROPES; MATERIAL: POLYESTER, DIAMETER: 24 mm, TENSION RESISTANCE: 12600 Kg.</p> <p>Remarks: According to general remarks.</p>	MT	440

**GENERAL REMARKS:**

- **LINE 1:**
- -ROPES; MATERIAL: POLYESTER, DIAMETER: 14 mm, TENSILE STRENGTH: 3000 Kg
- - Twisted rope of polyester material of THREE (3) white laces, IRAM standard 7516 and 7517 in case the cordage is a national industry. Nominal diameter 14 mm, highly resistant to the corrosive effects of brackish water, fuel, mold and fungal lubricants. Permanent dry or wet flexibility. High resistance to abrasion and UV rays. Roll of 220 m, approximate weight per roll will be 33 kg. - Specifications:
  - 1) Breaking load: greater than 3050 kg.
  - 2) Specific weight: Greater than 1.3 g/cm<sup>3</sup>.
  - 3) Melting Temperature: 260°C
  - 4) Water absorption: Yes
  - 5) Lengthing: Low
  - 6) Abrasion resistance: Very good
  - 7) UV resistance: Very good
  - 8) Resistant to common chemicals: good

## - LINE 2:

- - ROPES; MATERIAL: POLYESTER, DIAMETER: 22 mm, TENSILE STRENGTH: 12600 Kg
- Twisted rope of polyester material of THREE (3) white laces, IRAM 7516 and 7517 in case the cordage is a national industry. Nominal diameter 22 mm, highly resistant to the corrosive effects
- of brackish water, fuel, mold and fungal lubricants. Permanent dry or wet flexibility. High resistance to abrasion and UV rays. Roll of 220 m approximate weight per roll will be 81 kg.
- Specifications:
  - 1) Breaking load: greater than 7200 kg.
  - 2) Specific weight: Greater than 1,3 g/cm<sup>3</sup>.
  - 3) Melting temperature: 260°C
  - 4) Water absorption: Yes
  - 5) Lengthing: Low
  - 6) Abrasion resistance :Very good
  - 7) UV resistance: Very good
  - 8) Resistance to common chemicals: Good.

## RENGLÓN N° 3:

ROPES; MATERIAL: POLIESTER, DIAMETRO: 24 mm, TENSILE STRENGTH: 12600 Kg.

- Twisted rope of polyester material of THREE (3) white laces, IRAM standard 7516 and 7517 in case the cordage is a national industry. Nominal diameter 24 mm, highly resistant to the corrosive effects of brackish water, fuel, mold and fungal lubricants. Permanent dry or wet flexibility. High resistance to abrasion and UV rays. Roll of 220 m, approximate weight per roll will be 81 kg.

- Specifications|:

- 1) Breaking load: greater than 8650 kg.
- 2) Specific weight: Greater than 1.3 g/cm<sup>3</sup>.
- 3) Melting Temperature: 260°C
- 4) Water absorption: Yes
- 5) Lengthing: Low
- 6) Abrasion resistance: Very good
- 7) UV resistance: Very good
- 8) Resistance to usual chemicals: Good.

### 2.1. COMMON TECHNICAL SPECIFICATIONS FOR ALL LINES:

- 2.1.1 QUALITY:** New and unused. The materials to be delivered will not present marks of damage, deterioration or manufacturing defects and will be provided with their corresponding labeled safety wrappings. Its year of manufacture must not be earlier than 2019
- 2.1.2 WARRANTY / EXPIRATION DATE:** The Awardee must present, together with the rolls / coils, the guarantee given by the manufacturer. The same in no case shall be less than ONE (1) year, counted from the definitive receipt; must guarantee any failure of the material, defect of assembly or hidden vice not detectable to the naked eye
- 2.1.3 INTERNATIONAL STANDARDS:** The ropes of foreign origin shall comply, among others, with some of the following international standards: ASTM; BS (BRITISH STANDARDS) and also be certified by an international classification society, among the following:



- LLOYD'S REGISTER OF SHIPPING.
- NIPPON KAIJI KYOKAI.
- DET NORSKE VERITAS.
- ITALIAN REGISTER NAVALE.
- AMERICAN BUREAU OF SHIPPING.
- BUREAU VERITAS.
- BUREAU SECURITAS.
- GEMANISCHER LLOYD.
- KOREAN REGISTER OF SHIPPING



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