

MATERIAL SPECIFICATION

VOCAB NUMBER	ITEM DESCRIPTION
111018	CABLE, UNSCREENED, 7/1.70, SINGLE CORE, 11/22 KV, T/F DROP LEAD COPPER POLYTHENE INSULATED, PVC SHEATHED.

SPECIFICATION DETAILS

1. SCOPE:

The specification covers the supply and delivery of single core copper conductor, Polyethylene Insulated, unscreened, PVC sheathed cable.

2. APPLICATION:

The cable is intended to be used as dropper cable from 11kv and 22kv overhead lines to Transformer Bushings. The cable is to run in free air and attached to intermediate porcelain insulator and support where drops are an excessive length.

3. STANDARDS:

All cables supplied under this contract shall comply with the requirements of AS 1125 "Conductors in Insulated Electronic Cables and Flexible Cords, AS 1429"

- **Unit of Measure: Metre**
- **Rejection:** PNG Power Ltd reserves all rights to reject whole or part of the order not complying with this specification and is not liable for any cost or loss with the return of rejects to the Supplier. Facilitation of Invoice Credit must commence between the supplier and PNG Power Ltd through the process of PNG Power Ltd Discrepancy Report provisions.

Drawing References:	N/A	Manufacturer's Product Code:
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ENGINEERING STANDARDS APPROVAL

Approval by: Grevasius Peni
Chairman

Signature: 

Date: 21 / 8 / 20

DATA REVIEW ENDORSEMENT

NAME	TITLE	SIGNATURE	DATE
Rawali Rawali	Engineer - Standards and Materials		

GENERAL SPECIFICATION FOR TIMBER DRUMS FOR INSULATED CABLES AND BARE CONDUCTORS
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4. CABLE DESIGN:

- 4.1. **Copper Conductor:** The copper Conductor plain annealed copper conductor 7/1.70 compacted strand, Nominal area 16mm².
- 4.2. **Insulation:** The Insulation shall be polyethene with an average thickness of 5.5mm.
- 4.3. **Sheath:** The outer sheath shall be black V75 PVC with an average thickness of 1.4mm.

5. PACKING:

- 5.1. **Drums:** The cable shall be suitably packed on cable drums to prevent and unspooling.
- 5.2. **Length:** The length of each drum shall be 250 metres subject to normal manufacturing tolerances.
- 5.3. **Mass:** The shipping weight of each drum shall be stated in the tender.
- 5.4. **Unit of Measure:** Metre.

6. INSPECTION:

- a) Upon receipt into stores the cable shall be inspected by a PNG Power Staff to ensure compliance with this specification.
- b) Any cable found to be faulty or not up to standard of this specification shall be returned to the contractor for rectification or replacement at no cost to PNG Power Ltd.

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7. INFORMATION TO BE SUPPLIED WITH TENDER:

Tenders shall submit with their quotation the following;

- a) The name of the manufacturer,
- b) Brand name
- c) And place of manufacture of the cable offered.

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1. All drums shall comply with AS 2857 "Timber Drums for Insulated Electric Cables and Bare Conductors" and the last amendments.
2. The net contents of any drum shall not exceed the capacity limits of clause 2.1.1 of AS 2857.
3. Spindle holes shall be reinforced with steel plates in accordance with clause 2.5 of AS 2857.
4. All drums other than those with plywood flanges shall be supplied with close fitting timer batten lagging in accordance with clause 6.3 of AS 2857.
5. Drums intended to be used for bare aluminium based conductors shall be evenly coated on the barrel and inside flanges with an aluminium paint or approved alternative. See clause 6.1 AS 2857.
6. Drums intended to be used for underground cables shall be fabricated from preservative treated timber.
 - 6.1 Preservative treated timber shall comply with the requirements of AS 1604 "Preservative-Treated Timber, Veneer and Plywood".
 - 6.2 Timber shall be seasoned to 30% moisture content or less and shall be Vacuum-pressure impregnated with recognised waterborne CCA - preservative prior to construction and assembly of the drum.
 - 6.3 Preservative treatment shall comply with the minimum retention specified for Hazard level H5 (outdoor, unpainted, and moderate) as set out in table 2 of AS 1604.
7. Drums markings shall be in accordance with AS 2857 with the following:-
 - a) A description of the construction of the cable and conductors.
 - b) The conductor material and the conductor cross-section.
 - c) The number of Cores and the voltage rating of the cable (insulated cables only).
 - d) The length of the cables or conductor on the drum.
 - e) The PNG Power vocabulary numbers as shown on the particular material specification.

NB: Additional marking may be required by the particular material specification, which should be read in conjunction with this clause