

CHAPTER : XII - MISCELLANEOUS

C.F.SPECN NO.12.5

DATED 17-1-1995

ITEM : PAPER TUBE FOR 130MM  
CARTRIDGE.

SUPERSEDES CF.NO.12.5

DATED 25-10-1985

**General:**

Any question regarding this specification shall be addressed to the General Manager, Cordite Factory, Aruvankadu, Nilgiris, Tamilnadu.

**1. Scope:**

a) This specification is meant to govern the quality requirement, method of sampling and test applicable to paper tubes for 130mm cartridge.

b) This tube is to satisfy CFA Sketch No.765 dated 2-12-88 and/or CFA Sketch No.766 dated 2-12-88.

**2. Related Specifications:**

a) JSS:1209 for Paper Kraft Ammunition.

b) INE/ME/788(d) for Synthetic adhesive.

c) JSS:1-63-11 for Ammunition Protective Composition 225 (Shellac Varnish 30%) or JSS:8010-42 for NC Varnish Ammunition Protective Composition 217.

**3. Manufacture and finish:**

3.1 The dimensions of the tube will be as per CFA Sketch No.765 dt.2-12-88 or CFA Sketch No.766 dated 2-12-88 as the case may be.

3.2 The paper tubes are to be made out of Paper Kraft Ammunition to specification JSS:1209 using Synthetic Adhesive to specification IND/ME/788(d). However, it will be ensured that the quality of synthetic adhesive used for making the paper tubes should be such that its chloride content is within 0.05% (Max.) and sulphate content is within 0.40% (Max.) respectively.

3.3 The layers of paper are determined according to the wall thickness and these are wound spirally on spiral tube making machine or any other approved method. Then the tubes are cut into the required length in trimming machine.

3.4 Both the ends are closed with paper discs punched from the Kraft Paper Ammunition to specification JSS:1209 and pasted using synthetic adhesive to specification IND/ME/788(d).

3.5 The tubes should be varnished using two coats of APC 225 (Varnish Shellac 30%) to specification JSS:1-63-11 by brushing or by Ammunition Protective Composition (NC Varnish) 217 to specification JSS 8010-42 by dipping. The tube supplied in varnished condition should have a smooth surface and the varnish coating is properly dried.

**4. Tender Sample:**

The Contractor shall submit five samples free of all charges and conforming to this specification.

**5. Sampling:**

Five separate representative samples shall be taken from each consignment of 1000 Nos. or part thereof.

6. Inspection:

- a) General Manager, Cordite Factory, Aruvankadu shall be the Inspecting Authority.
- b) General Manager, Cordite Factory, Aruvankadu or his authorised representative shall be the Inspecting Officer.
- c) The acceptance of the material shall be subject to final approval of Inspecting Authority. Samples of the material may be taken from any portion of the consignment.
- d) If, on examination, any sample is found not conforming to this specification, the whole consignment may be rejected.
- e) The foregoing provisions shall apply equally to prime contractors and to any sub contractors.

7. Testing:

Samples taken from any portion of the supply shall be in accordance with clause (3) above and shall comply with the requirements given below:

## Requirement of Paper Tube.

a) Physical:

1. The dimensions of the paper tube will either be as per CFA Sketch No. 765 dated 2-12-88 or as per CFA Sketch No. 766 dated 2-12-88 as the case may be.

2

2. When a pressure of 10 kg/cm is applied laterally on the paper tube, the tube should not collapse. At that pressure, the end discs pasted to the tube should not open out.

3. The tube should have a smooth surface and the varnish coating is properly dried.

b) Chemical:

<u>Sl.No.</u>	<u>Characteristics</u>	<u>Requirements</u>
1.	Moisture content at 103 C - 105 for 1 hour per cent, Max.	10.0
2.	PH of water extract Maximum Minimum	7.5 5.5
3.	Water soluble chlorides calculated as Sodium Chloride percent by mass maximum	0.05
4.	Water soluble sulphates calculated as anhydrous Sodium Sulphate, percent, by mass, maximum	0.40
5.	Fatty and/or similar acids calculated as Oleic Acid, percent by mass, maximum	0.25
6.	Ash on incineration at 900 C plus or minus 25 C, percent maximum	7.5
7.	Alkalinity calculated as Calcium carbonate, percent, by mass, maximum	2.0
8.	Soluble lead compounds calculated as lead monoxide, percent maximum.	5.0

8. Packing and Marking:8.1 Packing:

Material shall be packed, as agreed to between the indenter and the supplier. For rail consignments, relevant provisions of IRCA, Red Tariff No.19 of 1960 as amended from time to time, will be followed.

3/5



8.2 Marking:

If the material is to be lifted by rail, provision of IRCA, Red Tariff No.19 of 1960 as amended from time to time, will be followed.

If the material is to be lifted by the purchaser under his own arrangement, marking as required by the purchaser will be made.

*V. Padmanabhan*

V. PADMANABHAN  
GENERAL MANAGER  
CORDITE FACTORY/ARUVANKADU

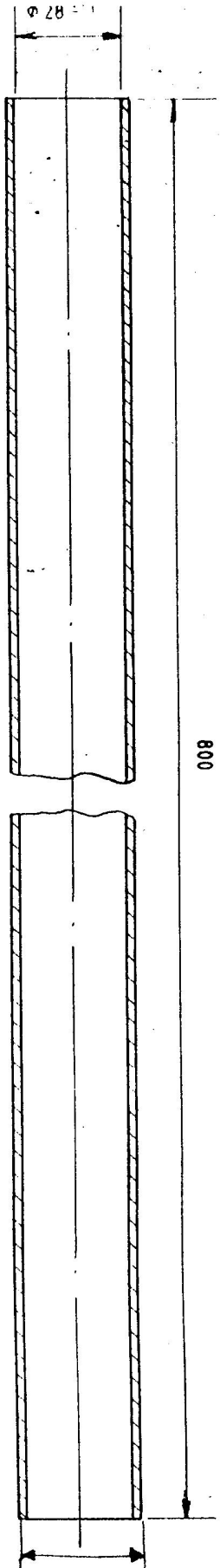
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SF, CC, TS & SQAE(ME)/AVK

COPY NO. OF FOR

EFFECTIVE FROM : IMMEDIATE

cf12.5



OUTER DIA } →  $31 \pm 1$  (X)

(X) amended as per OITC approval No. To 3018 dt 18/11/76 (am) enclosed

DIMENSIONS ARE IN MM.

NOTE :- BOTH ENDS OPEN

<b>CORDITE FACTORY ARUVANKADU</b>	
DRAWN	Pm11b/pps
TRACED	
CHECKED	
APPROVED	<i>[Signature]</i>
SCALE :-	1 : 1
CFA. SK. No.	765
DATE	2.12.88
<b>PAPER TUBE FOR 130 MM FULL CHARGE</b>	
FOR GENERAL MANAGER CFA	

No. IO 3015/N  
Inspection Office  
Dt. 24-6-1996

Sub: Correction Slip No. 12.5-1 dated 21.6.96  
to "Paper tube for 130mm cartridge".

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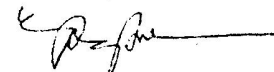
The following correction is issued to CF  
Specification No.12.5 dated 17-1-95.

Clause: 2

For : Existing.

Read : Related Specifications:

- (a) JSS: 1209 for paper kraft Ammunition
- (b) IND/ME/788(d) for synthetic adhesive
- (c) JSS 8010-63 for Ammunition Protective  
composition 225 (shellac varnish 30%)  
or JSS : 8010-42 for NC Varnish  
Ammunition Protective composition 217



( R. JAYARAMAN )  
GENERAL MANAGER  
CORDITE FACTORY/ARUVANKADU

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cf12.5

No. QC(TC)/3015/N  
QC(TC) OFFICE  
DATED 02-08-2011

Sub : Correction slip No. 12.5.2 dated 02-08-2011 to  
"Paper Tube for 130 mm Cartridge".

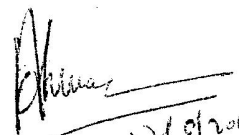
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The following correction is issued to C F specification No. 12.5 dated 17- 01-1995 :

Clause 7(b) Chemical

FOR : SI. No. 6 ASH ON INCINERATION AT 800 deg C  $\pm$  25<sup>0</sup> C - 7.5  
% ( MAX)

READ : SI. No. 6 - Not applicable

  
(ASHOK KUMAR)  
GENERAL MANAGER  
CORDITE FACTORY, ARUVANKADU

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