



आयुध निर्माणी भंडारा
म्युनिशन्स इंडिया लिमिटेड
कीडकाई
भारत सरकार का उद्यम
रक्षा मंत्रालय
भंडारा, महाराष्ट्र-441 906.

Ordnance Factory
Bhandara
Unit of Munitions India Ltd.
Govt. of India Enterprise,
Ministry of Defence
Bhandara, Maharashtra- 441
906.



दूरभाष सं/PHONE No. 07184-275742-49

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Quality Assurance Plan

ITEM: PLYWOOD C-26 BOX

SPECIFICATION/DRAWING: AS PER OFBA DRAWING NO. OFBA/BT/120 ATTACHED

1. Supplier/ Manufacturer has to submit latest Pre-inspection report/test results from NABL accredited laboratory/ Govt. laboratory for all test requirement as mentioned in above said specification/Supply Order.
2. Firm has to supply the bulk material strictly as per specification/drawing & supply order.
3. Bulk quantity, of the store will be inspected for the following parameter-
Visual inspection- (Quantity 100%) item should be free from any visual defects/damage.
Dimensional Inspection-as per specification/drawing mentioned above & in the Supply Order.
4. All parameters should be as per above mentioned specification/drawing.
5. All other criteria should be as per the specification/drawing mentioned above.
6. Bulk will be accepted on the basis of inspection & test report of NABL accredited laboratory/Govt. laboratory/OFBa laboratory as per specification/Drawing mention above and all other criteria mentioned in supply order/"any attached sheet" with the supply order should be followed strictly.
7. Item should be appropriately packed to ensure that there is no transit damage.
8. If any latest version of the specification/Drawing mention above is found available and included in the supply order then the latest version will be followed.
9. Clearance of advance sample: Firm has to supply advance sample -
 - a. When an item is being developed for the first time.
 - b. When an item is being developed through new source.
 - c. When an item is being supplied by the firm after laps of three years after completion of last Order.

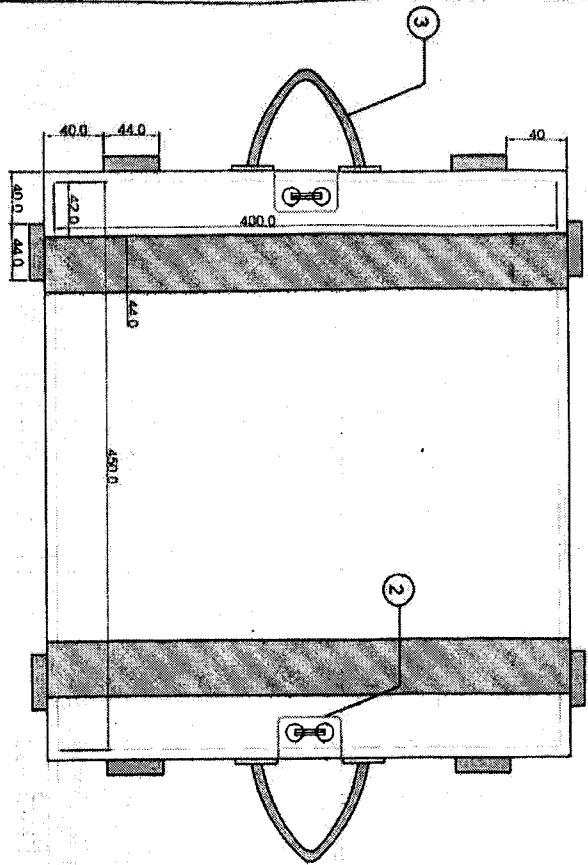
(D.M. Shende)

Divisional Officer/QC (Process)
For General Manager

पंजीकृत पतालिमिटेड म्युनिशन्स इंडिया : मुख्यालय, द्वाितीय तल ,न्याति यूनिट्री ,गुजन थिएटर
के पास, नागर मार्ग, येरवदा, पुणे, महाराष्ट्र - 441 006 .

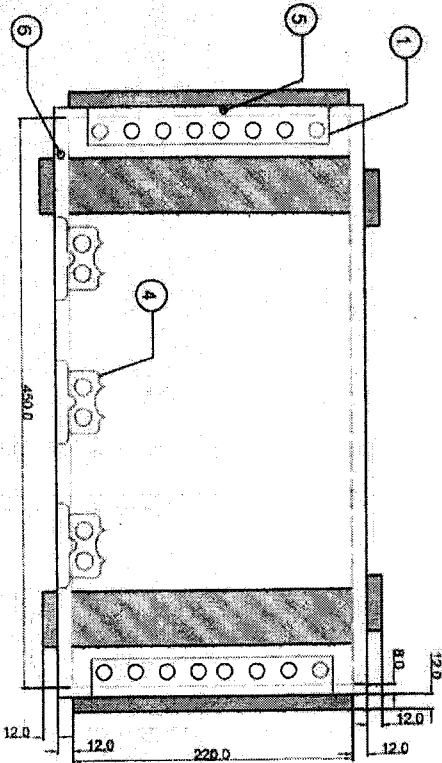
Regd. Office: Munitions India Ltd Headquarters., 2nd Floor, NyatiUnitree, Near Gunjan Theatre, Nagar Road,
Yervada Pune, Maharashtra - 411 006 दूरभाष सं /PHONE No. 020-67080400, 020-67080401.

ALL DIMENSION ARE IN MM OTHERWISE ITS STATED

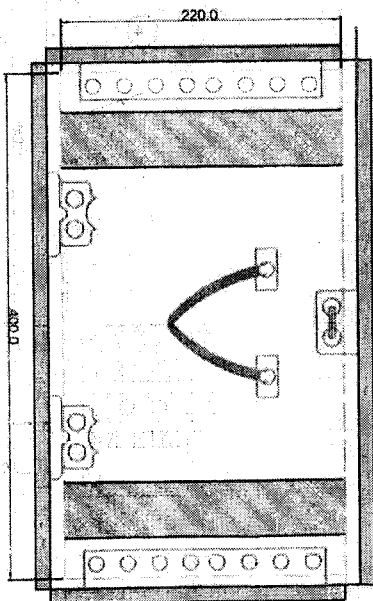


TOP VIEW OF BOX

| SL. NO | NOMENCLATURE |
|--------|---------------------------------------------------------------------------------------------------------------|
| 1 | G1 STEEL STRIP - FOR REINFORCING CORNERS FOR SIDING OF SIZE 19025 X 6025 X 0.5 MM, QTY - 04 NOS AS PER IS-513 |
| 2 | TOP COVER FIX WITH CATCH LOCKING SYSTEM IN BOTH ENDS QTY-02 NOS |
| 3 | POLYESTER STRIP 30600 MM (QTY-02 NOS) BS7000 (MM) AS PER IS 1989 WITH THE HELP OF BIFURCATED RIVETS |
| 4 | G1 BUCKETS 0.6MM THICK QTY-10 NOS |
| 5 | PLYWOOD 8MM/10.5MM THICK BWR GRADE AS PER IS-303 FOR FOUR SIDE FACES. |
| 6 | PLYWOOD 12MM/16.0 5MM THICK BWR GRADE AS PER IS-303 FOR TOP & BOTTOM SIDE |
| | INTERNAL DIMENSION OF BOX = 450*2 X 400*2 X 220*2MM |
| | SIDINGS OF BOX IN ONE SIDE COLLAPSIBLE FORM |



FRONT VIEW OF BOX



SIDE VIEW OF BOX

| | |
|---------------------------|------------------------|
| ORDNANCE FACTORY BHANDARA | |
| PLYWOOD C-26 BOX | |
| DATE - 07.02.2023 | SCALE - NTS |
| DSN - A R Chandrabhasani | DWG. NO. OFBA/ BT/ 120 |
| TCD | CHECKED BY |
| | APPROVAL BY |
| | Nikhil P. Dole |
| | DOBT |

SPECIFICATION

Chapter -XII (Miscellaneous)

Item : Plywood C-26 box

Specification no. B.F. No. 1.56

Date: 09-02-2023.

Supershide Spcn. No. NA

Date : NA

1. **Item.** Plywood C-26 box made of BWR grade plywood as per IS.303.
2. **Scope.** This specification prescribes the quality and general requirements for Plywood C-26 box made of BWR grade plywood as per IS.303.
3. **Material.** Material used i.e. BWR grade plywood conforming to IS.303 shall be used for making of the subject box.
4. **Internal dimensions.** The dimensional construction of box as well as all other and components/materials for the construction of the box should be confirmed to the drawing no. OFBA/BT/120 Dtd. 07.02.2023.
5. **End use.** For packing and despatch of NGB/AKB-204 lot to other factories or other consignees.
6. **Quality Requirements.** Any portion of sample from the consignment shall be confirmed to 6.1 & 6.2.

6.1 **Physical test parameter.** Plywood C-26 box is tested for the following

| Sl. No. | PARAMETERS | SPECIFICATION LIMIT | TEST METHOD |
|---------|------------------------------------------------------------------------------------------------|-----------------------------------------|-------------|
| 1. | Plywood board thickness 8mm (min) for four side faces | 8 ± 0.5 mm (min) | - |
| 2. | Plywood board thickness 12mm (min) for Top & Bottom | 12 ± 0.5 mm (min) | |
| 3. | Polyester Strap (Dark green) | 30mm x 600mm | |
| 4. | G.I. steel strips (Vertical faces joint with each other by hot pressing of G.I. strip) 04 nos. | 190 ± 5 x 60 ± 5 x 0.5 mm thick | |
| 5. | GI Buckles. 10 nos. | 0.8mm thick | |
| 6. | Catch locking system 02 nos. at top | | |

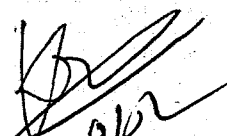
NOTE-A

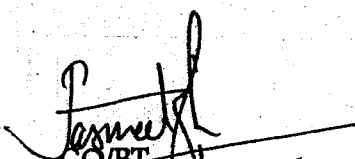
1. Box should be dropped total six times (from all four sides, top and bottom) from the height of 1.5 meters after the specified weight of sand/saw dust mixture filled in four nos. of C.B. and packed in box and properly sealed.
2. Observation to be noted.
3. There should not be any breakages/damages to box.

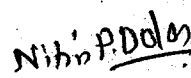
6.2 **Chemical test Parameters.** Plywood C-26 box is tested for the following.

| Sl. No. | PARAMETERS | SPECIFICATION LIMIT | TEST METHOD |
|---------|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------|
| 1. | Plywood board thickness 8mm & 12mm Glue shear strength (dry state) i. Average ii. Min. individual | Requirement as per IS 303:1989 1350 Min. 1100 Min. | IS 1734 (Part 4), 1983 |
| 2. | Polyester strap 30mm Breaking strength N | BS7000 min as per IS:1969 | Guideline of IS:1969 (P-1) 2009 (RA 2018) |
| 3. | Drop test | Should pass the test | Note-A or Method JSG-0102 (Part-II) |

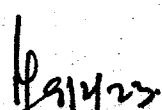
7. **Marking** . The boxes shall be marked with following details such as product name, Lot No., Consigner's Name & Logo, Consignee's Name, Net weight, Tare weight, Gross weight, UNHD 1.1C etc. in English letters with black paint.
8. **Inspection.** The item shall be offered to QC(S&P) section of OFBa for inspection and testing for the above.
9. **Packing and issue.** Strips of Propellant NGB/AKB-204 are filled in C.B. Boxes. 4 nos. of filled C.B. boxes covered with polythene bag are then packed in the plywood C26 box for issue to the Consignees through explosive van.


AGM/P


GO/BT


DO/BT


OIC/BT


GENERAL MANAGER