

SPECIFICATION DOCUMENT

Schedule of requirement:

Item Name : DEVELOPMENT, MANUFACTURE & SUPPLY OF PACKING BOX
AS PER SPECIFICATION NO.7167/PACKING BOX/SPEC/CQB
(ATTACHED)


- (i) Quantity Tolerance : Not applicable
- (ii) Item code : 7016700002


Specification for Box Packing for 5.56X45mm CQB Carbine

Specification No. 7167/Packing Box/Spec/CQB

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21/10/2022


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1. Introduction: Carriage of Small Arms occur by various means of transport available with the Troops. Hence it is important that Packing Box should be lighter and no damage should occur to the equipment placed in side during the transport. The Box packing for 5.56x45 mm CQB Carbine is developed for safe carriage of weapon, tools and accessories. This is manufactured with Engg. Plastic material by moulding method. It can carry 10 Nos. of CQB Carbine along with tools , accessories and Gauges.

2. Scope: This specification provides details of manufacturing, Inspection and Test to be carried out for acceptance of the Box Packing for 5.56X45 mm CQB Carbine.

3. Related Specifications: Whenever the reference is made to any standard document in this specification, it shall be taken as reference to the latest edition of the documents unless otherwise stated. The following documents were consulted in preparation of this specification.

- a) Environment Testing of Armament store: No. JSG-0102-1984
- b) Packaging Requirements for service Electronic Equipment: No. JSS 0253-01:1981 (Reaffirmed 2001.)
- c) Environment Engineering Considerations and laboratory tests: No.MIL-STD-810F
- d) Colours for Ready mixed paints and enamels: No. IS 5:2004.


4. Manufacture: The Packing Box for 5.56X45mm CQB Carbine is to be manufactured with Plastic material like Linear Low Density polyethylene / Fibre Reinforced Plastic material with suitable process of manufacture. The dimensions of the box should be such that it accommodates 10 Nos. of CQB Carbine along with tools, spares accessories and gauges. The cushioning material shall be of cross linked foam with minimum density 50 kg / cu m and black colour. The colour of the box will be green to IS:5, except ISC no 224,227,279,294,298. The box will be provided with suitable wheels as per drawings for ease of carrying and handling. The box will also be provided with handles & locks. The lid and the box will be sealed with rubber or silicon material to avoid ingress of water in rain. The marking/stenciling on the box will be carried out as per instructions from SAF.


5. Inspection: 100% box packing will be subjected to the visual inspection for defects viz. damage, finishing, warpage and colour. 100% cushioning material will be subjected for visual inspection for short mould, flash, colour. Qty 2 selected randomly from 10 boxes manufactured will be inspected for dimensional inspection as per QAP. The material tests will be carried out as per QAP and test certificates will be given.


6. Tests to be carried out on the box Packing: Qty 2boxes selected randomly out of 10 boxes passed in inspection will be subjected to the Tests as given in Appendix "A". The tests will be carried out sequentially.

7. Sentencing of Lot of 10 Boxes: If the sample boxes pass the stipulated tests, the lot of 10 Nos of the Boxes will be sentenced "Accepted". If any sample box fails to meet the acceptance criteria, re test with double the sample size will be carried out. If the samples pass the test the lot will be sentenced as "Accepted", otherwise "rejected". These tests will be discontinued if consecutive four lots are passed.

8. Drawings: From the above mentioned details & inputs been SAF, the firm will prepare 2-d drawings & will submit to SAF for approval. After approval of 2-d drawing manufacturing will be taken up by the firm.

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Appendix "A"


Tests to be Carried out on Box Packing for 5.56X45mm CQB Carbine

Sr. No.	Test Name	No of boxes for test	Test Specification	Acceptance Criteria
1	Water Spray Test as per K-JSS 0253-01	2	Water spray at a pressure 2.11+/- 0.35 kg/cm ² for all the top corners at an angle of 45 ^o from a distance of 2.44 m. Duration 5 minutes	The box packing is sentenced passed the test if ingress of water in the area where CQB Carbine are kept is not found.
2	Dry Heat Test As per C-JSS 0253-01	1(1 st box)	One Box is exposed to a temp of 75+2 ^o C with RH 40% for 48 Hrs.	The box is packing sentenced passed the test if the gasket of silicon, Plastic items of CQB Carbine and cushioning material are found without distortion, surface defect.
3	Low Temp Test As per G-JSS-0253-01	1(2 nd Box)	One Box shall be conditioned in the test chamber for a period of 8 Hrs at a temperature of 20+5 ^o C & 65+5% RH. The Temperature of the chamber then shall be lowered to -20+2 ^o C in 1hr min to 4 hrs max. The temperature shall be maintained for 48 Hrs.	The box packing sentenced passed the test if the gasket of silicon, Plastic items of CQB Carbine and cushioning material are found without distortion, surface defect.
4	Bump Test As per A-JSS 0253-01	1(1 st box)	The box shall besubjected to atotal of 10,000 bumps when firmly secured to the table of the bump machine. The height of drop of the table & the retarding medium of the machine shall be produce a pulse	The box packing sentenced passed the test if post -test the contents are found serviceable.

			approximating to one half cycle of a sine wave of between 25ms and 35ms duration.	
5	Drop Test AS per MIL-STD 810F	1(2 nd Box)	Refer Table No 516.5 VI of the MIL-STD-810F. Drop package from 61cm height on each corner. (total 8 drops)	The box packing sentenced passed the test if post -test the contents are found serviceable.
6	Lifting Test As per F-JSS-0253-01	1(1 st box)	Load the box with three times the gross weight maintaining the CG and allow the box to hang freely for a period of five minutes from the handles	The box packing sentenced passed the test if damage is not observed in box handles or any other area.
7	Static Load Test As per H-JSS-0253-01	1(2 nd Box)	The package base shall stand on hard surface base, the upper most surface subjected to a static load equivalent to that by stacking on it. The minimum number of similar packages required to reach height between 5.5, to 5.8m. The load shall be applied for 24 hrs.	The box packing sentenced passed the test if post -test the contents are found serviceable.

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