No. U.II-98(Spec)/2013-14-Prov.

भारत सरकार/Government of India

गृह मंत्रालय/Ministry of Home Affairs

पुलिस आधुनिकीकरण प्रभाग /Police Modernization Division

संभरण-I डेस्क /Prov.I Desk

26, Man Singh Road, Jaisalmer House
New Delhi, Dated : 26th December, 2013

To,

DsG : AR (through LOAR), BSF, CISF, CRPF, ITBP, SSB, NSG & BPR&D.

Subject : QRs/Specification of Tactical Boot (PU Sole) Black and Brown.

The QRs/Specification of Tactical Boot (PU Sole Black and Brown) as per Annexure have been accepted by the Competent Authority in MHA

2. Henceforth, all the CAPFs should procure the above items required by them strictly as per the laid down Technical QRs/Specification.

Yours faithfully,

(Smt. S. B. Nanda)
Under Secretary to the Govt. of India
Tel : 23381278

Encl : As above.

Copy forwarded to : SO (IT), MHA, with the request to host the QRs/Specifications (soft copy being sent through email) on the MHA website (under the page Organizational Set up-Police Modernization Division - Qualitative Requirements)

(R K Soni)
Section Officer (Prov.I)

Copy to : DDG(Procurement), MHA.

Copy for information to : PPS to JS (PM)

SPECIFICATION OF TACTICAL BOOT[PU] SOLE (BLACK & BROWN)

1. SCOPE

1.1 This specification covers the requirement of Tactical Boot [PU] Sole. These are meant for use by CAPF Personnel.

1.2 The boots described in this specification are made from Chrome tanned barton printed leather upper. The toe puff & counter are to be made of smooth leather. The boot are manufactured with cleated P.U. Soles with anti slip design.

2. MATERIALS

A	Upper Leather	
1.	Vamp & Quarter	BLK/BWN BUFF Barton Printed (2.0 - 2.2 MM)
2.	Toe	BLK/BWN BUFF SMOOTH (1.3-1.5 MM)
3.	Counter	BLK/BWN BUFF SMOOTH (1.3-1.5 MM)
4.	Vamp lining	Non woven (1.1 mm) (Min.)
5.	Top puff	Thermoplastic 2.0 mm ± 0.2 mm
6.	Stiffener	Thermoplastic 2.0 mm ± 0.2 mm
7.	Collar	PU FOAM of 15± 1 mm thick
8.	Water Vapour permeability	0.8 mg/cm²/hr(Min) as per IS 15298 (part 1): 2011
B	**CLOSING MATERIAL**	
9.	Thread	20/3, 6 ply nylon
10.	Eyelet	600 No BLK/BWN Brass. With inner dia 5 MM
11.	Strobel	Anti static 2.0 mm (Min.)
C	**SOLING**	
12.	Sole	PU Polyester
13.	Sole thickness	Clause 5.8.1-IS 15298 (part-II) :2011
14.	Sole fixation	Direct Moulding Process
15.	Sole hardness	55 ± 5 Shore A as per SATRA TM-205
16.	Sole Flexing Resistance	Max cut growth 4 mm till 30,000 cycles as per IS 15298 (Part-I):2011
D	**FINISHING**	
17.	Lace material	Nylon
18.	Lace length	120 CM BLK/BWN (Min.)
19.	Socks Full	Drill cloth laminated with 2 mm EVA
20.	Back height for size-8	170 mm ± 1.5 mm per size
21.	Weight for size -8	Appx 900 ±50 gm/pairs size-8 & ±5% increase /decrease as Per Size
22.	Colour	Black / Brown
23.	Size roll	39 - 48, [5 – 14]

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3 Construction

The Boots shall be made by Direct Moulding Process using board toe of H fitting. The lasting shall be made by force / slip with strobel stitched insole.

4 Design

The Boot shall be of Derby type as per sketch attached for guideline. The P.U sole design and dimensions for guidance are furnished in the plate attached to this specification.

5 Requirement of Finished Product

5.1 Bond Strength:

The Direct Moulded Boot shall be subjected to adhesion test. The testing shall be made at least 24 hours, after manufacture.

Upper/out sole bond strength- The bond strength shall not be less than 4N unless there is tearing of the material in which case the tearing strength shall not be less than 3 N/mm, When tested as per IS 15298(part-1):2011.

The bond strength between the outer or cleated layer and the adjacent layer shall not be less than 4N/mm unless there is a tearing of the sole, in which case the bond strength shall be not less than 3.0 N/mm when tested as per IS 15298(part-1):2011.

5.2 Hydrolysis Test

The sole shall be placed in High Humidity (100%) at a temperature of 72° C for 5 days and than tested as per IS 15298 (part 1):2011 on Ross flexing machine for 150,000 cycles. The crack growth shall not be more than 300%.

5.3 Electrical Insulation

When measured in accordance with the method described in when tested as IS 15298(part-1):2011 after conditioning in a dry and wet atmosphere, the electrical resistance shall be not less than 100 kΩ and not greater than 1000 MΩ in each case.

5.4 Heat Insulation of Sole Complex

When Footwear is tested in accordance with the method described in when tested as per IS 15298(part-1):2011, the temperature increase on the upper surface of the insole shall be not greater than 22°C.

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5.5 Cold Insulation of sole complex

When Footwear is tested in accordance with the method described in when tested as per IS 15298(part-1):2011, the temperature decrease on the upper surface of the insole shall be not more than 10°C.

6 Sampling

The scale of sampling of footwear, the method of their selection and the criteria for conformity shall be as prescribed in IS 2051:1976.

7 Marking and Packing

7.1 The waist position of the finished Boot shall be legible stamped with the manufacturers name or his recognized trademark and size.

7.2 Each pair of Boot shall be placed heel and toe alternatively i.e upright position wrapped with tissue paper. A label with following markings shall be placed outside the box which shall be clearly readable.

(i) Nomenclature
(ii) Manufacture's name or Trade mark.
(iii) Month and year of manufacture.
(iv) Size.

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Annexure- 1

Eco-friendly test for Tactical Boot

SL. No	Parameters	Limits	Method of test as per
1	pH of aqueous extract of leather	Not less than 03 or greater then the difference of pH on dilution by a factor of 10 (differential number), shall not be more than unity.	IS 1390
2	Formaldehyde, mg/kg, Max	200	LC : 3 of IS 14816/ISO 17226
3	Pentachlorophenol (PCP), mg/ kg, Max	5	IS 14575 / ISO 17070
4	Coupled amines released from azo- dyes (sum parameters), mg/kg, Max	30	LC : 4 of IS 14816 / ISO 17234
5	Dispersed dyes allergenic	SG Criteria	DIN 54231

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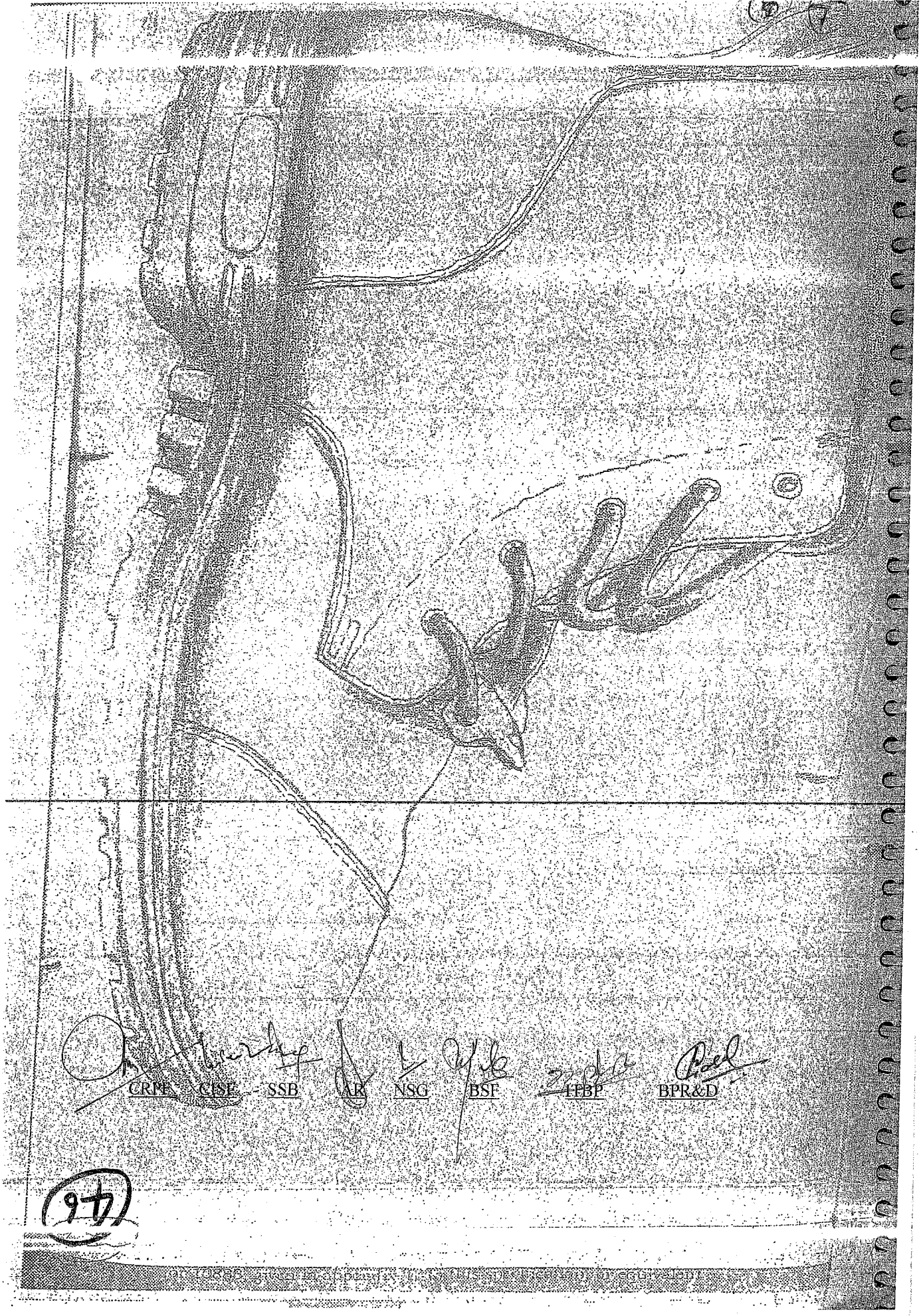
Approved / Not Approved

DG, CRPF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(2)

The members of sub-group have deliberated upon the technical parameters of the QRs and held detailed discussion on each and every point / parameter. After detailed discussion, the minor changes in consultation with FDDI rep in weight of size No.08 increased from 875 ± 50 gm to 900 ± 50 gm per pair in the draft specification of Tactical Boot [Black/ Brown], as the back height of Tactical Boot was slightly increased from 160 cm to 170 cm and proportionally the weight of boot was increase from 875 ± 50 gm to 900 ± 50 gm per pair and the sub-group has accepted above QRs (Appendix A & B) which are found fit in all respects and accepted too by them in toto. Accordingly the sub-group recommends forwarding the draft QRs/ Specifications to the MHA for approval.

Member..... **Dr. M. M. Ghosal,** **Dy.S.P., BPR&D**	Member: ..... **T. D. Deshta,** **A/C(O), ITBP**
Member:..... **C Keishing** **AD(Prov), SSB**	Member:..... **Mukesh Kumar** **Sqd-Comdr, NSG**
Member: ..... **S. K. Thakur** **DC(LO),Assam Rifle**	Member: ..... **K.P Singh** **AIG(Prov),CISF**
Member:..... **K. N. Suyal** **DIG, BSF**	Member: ..... **Parveen Kumar** **DIG(Prov), CRPF**
Member : ..... **Pankaj Kumar Singh, IPS, IG(Prov) CRPF**	
Chairman : ..... **Shri Dilip Trivedi, IPS, DG CRPF.**	