

No. U.II-98(Spec)/2015-16-Prov(RAF-ARShoe) 86  
भारतसरकार/Government of India  
गृहमंत्रालय/Ministry of Home Affairs  
पुलिसआधुनिकीकरणप्रभाग /Police Modernization Division  
संभरण-I डेस्क /Prov.I Desk

Jaisalmer House, 26 Man Singh Road,  
New Delhi, the 21<sup>st</sup> January, 2016

To

The Director General  
CRPF,  
CGO Complex, Lodhi Road,  
New Delhi.

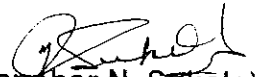
**Subject: QRs/Specifications of Anti Riot Shoe for RAF personnel.**

Sir,

The undersigned is directed to refer to DG, CRPF letter No.U.II-98(Spec)/2015-16-Prov(RAF-ARShoe) dated 31.12.2015 on the subject mentioned above and to state that the QRs/Specifications in respect of Anti Riot Shoe for RAF personnel as per Annex-I have been approved by the competent authority in MHA.

2. Henceforth, CRPF should procure the above items, required by them strictly as per the laid down QRs/Specification.
3. CRPF will be accountable for correctness of the QRs/Specifications of Anti Riot Shoe for RAF personnel.

Yours faithfully,


  
(Manohar N. Sukole)

Under Secretary to the Govt. of India

Encl: As above.

Copy forwarded for necessary action to:

- ✓ SO (IT), MHA - With the request to host the QRs/Specifications of Anti Riot Shoe for RAF personnel on official website of MHA (under the page of Organizational Set up, Police Modernization Division-Clothing Items). Soft copy is being sent through email.

  
(V. Devdas)  
SO(Prov-I)

Copy to: Director (Procurement), MHA.

**QUALITATIVE REQUIREMENTS/ SPECIFICATIONS/TRIAL DIRECTIVES OF - ANTI RIOT SHOES**

**1. SCOPE**

- 1.1 This specification covers the requirement of High Ankle Anti Riot Shoes in sizes 5 - 12 (English Sizing System) for protection against fire, sharp objects, stone pelting impact, water, oil, electrical shocks, slip, which may come across during riots. Care is taken to make the footwear durable & comfortable.
- 1.2 The Shoes described in this specification are made from Chrome tanned barton printed leather upper for vamp, quarter and tongue with padded collar, lined with non woven material to absorb perspiration. Toe cap, counter and jug loop are made out of plain CG leather. These Shoes are made with cleated sole of Neoprene nitrile rubber PVC blend or any other suitable polymer blend with anti slip design, by direct moulding process.

**2. REFERENCES**

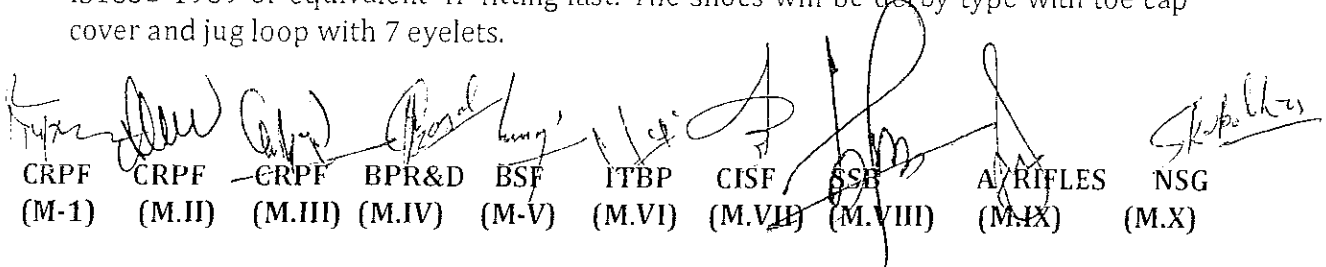
Reference is made in this specification to the following:

- i) IS: 2050-1991 Glossary of terms relating to footwear
- ii) IND/TC/0304 Laces for Shoes of matching upper color.
- iii) IS: 5041-1978 Specification for Footwear and Stationery Eyelets
- iv) IS: 1638-1969 Specification for Size and Fitting of Footwear
- v) IS:2051-1976 Method of sampling of Leather Footwear
- vi) IS: 15298 (Part 1):2011 Personal Protective Equipment (Test methods for Footwear)
- vii) IS:15298 (Part 2):2010 Personal Protective Equipment Safety Footwear
- viii) IS:2050:1991 Glossary of terms relating to footwear
- ix) BS/EN ISO 15090:2006 Fire fighting shoes

The Standards mentioned above or anywhere in this specification contain provisions which through reference in this text, constitute provisions of this standard.

**3. DESIGN**

The Shoes shall be made on broad toe last confirming to the dimensions given in IS1638-1969 or equivalent 'H' fitting last. The shoes will be derby type with toe cap cover and jug loop with 7 eyelets.


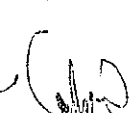
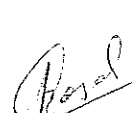
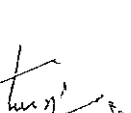




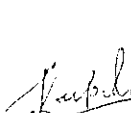
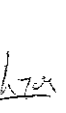

  
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4. MATERIALS

- 4.1 **Upper** : Fire resistant, water repellent/resistant, chrome tanned CG smooth leather upper (Thickness 1.8-2.0mm) for vamp, quarter, counter, toecap.  
Same leather of thickness 1 to 1.2 mm may be used for tongue & jug loop.
- 4.2 **Vamp lining**: 100% non woven sweat absorbing material min 210 GSM.
- 4.3 **Quarter Lining**: nylon non woven sweat absorbing material of min GSM150.
- 4.4 **Counter Lining**: Suade Leather having thickness 0.9 to 1.1mm
- 4.5 **Counter**: Thermo plastic stiffeners of minimum thickness 1.8 mm (±0.1mm) shall be used.
- 4.6 **Insole-cum-Nail penetration insert**: Any suitable material polymer (cavalor) to meet the requirement of specification may be provided.
- 4.7 **Insole**: Insole will be non-woven material for Stroble construction conforming to IS 15298:2010.
- 4.8 **In-sock**: Each Shoes shall be provided with a detachable 3.0 mm ± 1.0 mm thick full in-socks of PU having instep arch support. The outer layer of the in-sock shall be covered with nylon/cotton fabric.
- 4.9 **Laces**: Each pair of Shoes shall be provided with a pair of fire resistant (Aramid) Round Laces of minimum 130 cm long.
- 4.10 **Thread**: Thread shall be fire resistant .
- 4.11 **Sole** : Cleated sole with cleat height 4 mm & min. thickness of 4 mm of nitrile PVC blend or Neoprene any other suitable material of hardness 60±4 Shore 'A' to meet the requirement.
- 4.12 **Toe Cap**: Toe cap of any suitable material to withstand 200 joules of impact.

5. REQUIREMENTS AND TESTS

5.1 The material used in the manufacture of Shoes shall be tested to the requirements given in this specification.

									
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5.2 Whole Footwear

5.2.1 Mass

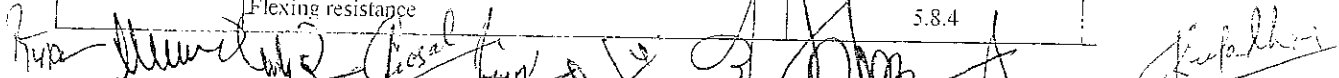
The Mass of one pair of finished Shoes of Size 6 shall not be exceed 1500gms with an increase or decrease of 50gms for each bigger or smaller size respectively.

5.2.2 Leg Height

The leg height of the Shoes when tested in accordance with IS 15298: Part 1 shall be 170 ± 2 mm, for Size 8 with an increase or decrease by 4.0 mm for each bigger and smaller size.

5.2.3 Requirement - The shoes shall meet the basic and additional requirements as per IS: 15298 part 2 as mentioned below.

Basic Requirement		IS: 15298/ISO 20345-2004 Part 2 Clause
Design	Seat region: Design C	5.2.2
Whole footwear	Sole performance:	5.3.1
	Construction	5.3.1.1
	Upper/outsole bond strength	5.3.1.2
	Toe protection: General	5.3.2
	General	5.3.2.1
	Internal length of toecaps	5.3.2.2
	Impact resistance	5.3.2.3
	Compression resistance	5.3.2.4
	Behaviour of toecapcaps	5.3.2.5
	Slip resistance SRA	5.3.5.2-ISO:20345-2011
Upper	Tear strength	5.4.3
	Tensile properties	5.4.4
	Water vapour permeability and coefficient	5.4.6
	pH value	5.4.7
	Chromium VI content	5.4.9
Vamp lining	Tear strength	5.5.1
	Abrasion resistance	5.5.2
	Water vapour permeability and coefficient	5.5.3
Quarter lining	Tear strength	5.5.1
	Abrasion resistance	5.5.2
	Water vapour permeability and coefficient	5.5.3
	pH value	5.5.4
	Chromium VI content	5.5.5
Sole	Abrasion resistance	5.8.3
	Tear strength	5.8.2
	Flexing resistance	5.8.4

  
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Basic requirements for insocks

		Requirements to fulfill		
		Thickness 5.7.1	Water absorption 5.7.4.1	Abrasion 5.7.4.2
1	Insock detachable	X	X	X

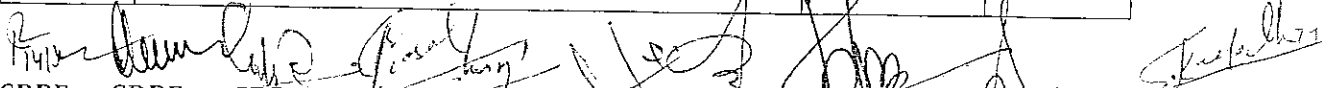
X means that the requirement shall be met.  
Basic requirements for insoles

		Requirements to fulfill		
		Thickness 5.7.1	Water absorption 5.7.4.1	Abrasion 5.7.4.1
1	Insole	X	X	X

X means that the requirement shall be met

Additional requirements for special applications with appropriate symbols for marking

Requirement		Clause	Symbol
Whole footwear	Penetration resistance	6.2.1	P
	Electrical properties:	6.2.2	
	Electrically insulating footwear : Class 'O'	6.2.2.3	I
	Resistance to inimical environments: ISO:50321	6.2.3	
	Heat insulation of sole complex	6.2.3.1	HI
	Cold insulation of sole complex	6.2.3.2	CI
	Energy absorption of seat region	6.2.4	E
Water resistance	6.2.5	WR	
	Flame resistance: During the flame test for the whole shoe, all the outer materials are exposed to a standardized flame for a period of 10 second. After this there should be no burning or glowing for more than 2 s and the material should have no serious damage.	EN 15090 clause no. 6.3.3	
Outsole	Resistance to hot contact	6.4.4	HRO
	Resistance fuel oil	5.8.7	

  
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**5.3 MARKING**

Each Shoes shall be legibly marked by the manufacturer on the waist position of the outsole with the detail of Name / Trademark of the manufacturer, month/year of Manufacture and Size of the Shoes.

Month and Year of manufacture shall also be marked on inside of the tongue.

**6. SAMPLING AND CRITERIA FOR CONFORMITY**

- 6.1 Manufacturers/ Contractors must satisfy themselves first by carrying out thorough pre-inspection of each lot/ batch that the stores manufactured are in accordance with the contract and fully conform to the specification, before tendering to QA officer nominated under the terms of contract.
- 6.2 A declaration by the Contractor that necessary pre-inspection/ tests have been carried out on the stores tendered and the same are fit for inspection and test shall be rendered along with the challan. The declaration shall include the method followed in pre-inspection showing features checked / tested and the test reports be submitted along with challan.
- 6.3 The Shoes Ankle Leather pairs of the same description nomenclature and of the same batch belonging to one size and fitting or a set of sizes and fittings offered against one challan shall constitute a lot.
- 6.4 The lot size shall not exceed 10,000 pairs.
- 6.5 In all cases samples shall be drawn using technique of random sampling as per IS: 2051-1976. The sampling officer shall first draw the samples for visual, dimensional, and construction parameters and for compliance to approved sample as per col 2 & 3 of the following table-3.
- 6.6 If found satisfactory on examination as above, the officer may draw (out of it) and send samples for lab testing as per col 2 & 5 of table-3. The samples so drawn shall be subject to testing .(Composite testing)
- 6.7 If found satisfactory, lot shall be accepted and inspection report shall be prepared.

**Table-3: SAMPLING PLAN**

S. No.	Lot Size in Pairs	For Visual, Dimensional, Constructional Parameters and compliance to approved sample		For Laboratory Testing for Physical and Chemical Parameters	
		Number of samples to be drawn	Permissible no. of non-conforming samples	Number of samples to be drawn	Permissible no. of non-conforming samples
(1)	(2)	(3)	(4)	(5)	(6)
1.	Up to 2500	50	5	3	0
2.	2501- 6000	90	8	5	0
3.	6001-10000	150	14	7	1

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(M-1)

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CRPF  
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BPR&D  
(M.IV)

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ITBF  
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A/RIFLES  
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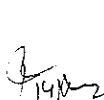
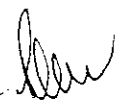


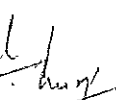





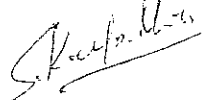
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NSG  
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7. PACKING

- 7.1 Each pair of Shoes shall be wrapped in tissue paper and shall be packed in a multi corrugated box that will form a unit pack.
- 7.2 A paper label with Nomenclature, Manufacturer's name/ Trade mark, Size and Month and Year of Manufacture shall be securely pasted on front of the unit box, which shall be clearly readable.
- 7.3 Suitable number of unit packs shall further be packed in one corrugated carton strong enough to withstand transit hazards and to the satisfaction of inspecting officer.
- 7.4 The Carton, thereafter shall be sealed with adhesive tapes and tape bound with polypropylene tapes if so desired by buyers. Each package shall be legibly marked with.
  - i. Nomenclature of the store.
  - ii. Quantity packed in the package.
  - iii. Lot and serial No. of the package.
  - iv. Month and year of manufacturer.
  - v. Gross mass of the package in kg.
  - vi. Name and address of the consignee.
  - vii. Name and recognized trade mark of the supplier.

8. STORAGE , SHELF LIFE & USAGE

- 8.1 These Shoes Leather shall have minimum usage life of two year.
- 8.2 These shoess shall have shelf life of three years.
- 8.3 The shoes must be stored in Dry and airy environment away from heat like direct sun light, heaters etc.
- 8.4 Users to take care that the shoes do not get wet for long time. Incase shoes are wet; it must be dried before next use.

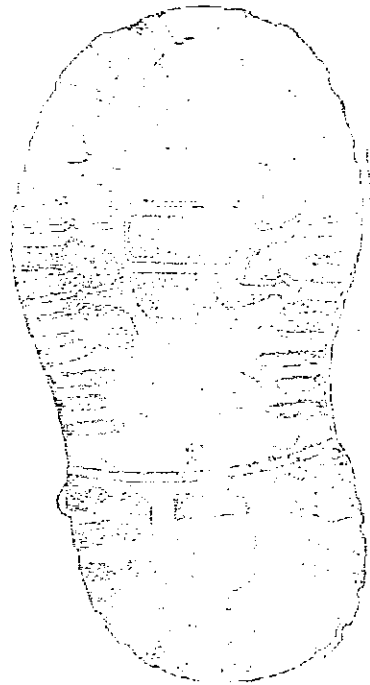
										
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(M-1)	(M.II)	(M.III)	(M.IV)	(M-V)	(M.VI)	(M.VII)	(M.VIII)	(M.IX)	(M.X)	

(7)

(For Reference only)




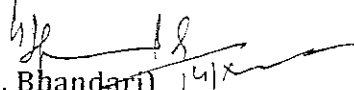



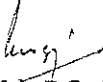


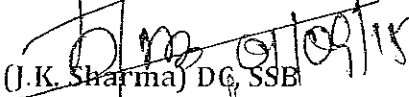

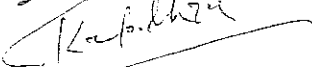
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Remarks of the Chairman -

- Chairman :   
(Prakash Mishra, DG, CRPF)
- Member-1 :   
(K.S. Bhandari) IGP, RAF
- Member-2 :   
(Seema Dhundia), DIGP, RAF HQr
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(Arvind Kumar Singh)  
Dy. Comdt, RAF HQr
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( ~~Sita Ram~~ ), AC, ITBP  
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