

DIRECTORATE GENERAL, CRPF
BLOCK NO.1, CGO COMPLEX, LODHI ROAD, NEW DELHI-03
(Bharat Sarkar/Grih Mantralaya)
Tele- 011-24360155/Fax-011-24360155)

No.L.VII-15/2022-23-Prov-DA-5

Dated, the 12 /09/2022

Expression Of Interest Notice

Tender No. :: L.VII-15/2022-23-Prov-I-DA-5(Part-I)
Publish Date :: 13th Sept, 2022
Last date of submission :: 28th Sept, 2022.

Description :: Expression of interest for procurement of Poly Carbonate Shield & Lathi for mahila personnel in CRPF. QRs/Specifications at Directorate General, CRPF, Lodhi Road, New Delhi vide L.VII-15/2022-23-Prov-DA-5 (Part-I) published dated 12th Sept, 2022, last receipt date 28/09/2022 at 1600 hrs. E-mail: digprov@crpf.gov.in, Fax: 24360155 as per details given at attached proposal.

Attachments :- Copy of EOI, scanned copy of draft QRs/Specifications of the subject item.

Sd/-12/09/2022
(D.N.Lal)
DIG (Prov) Dte.

‘EXPRESSION OF INTEREST’

CRPF is in a process of framing QRs of *Poly Carbonate Shield & Lathi* for mahila personnel in collaboration with DIPAS.




2. The draft QRs/Specification of said items are attached herewith.
3. The firms/parties dealing in subject matter are invited to submit their views by 28/09/2022(28th Sept, 2022).

Contact Person:-



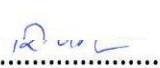
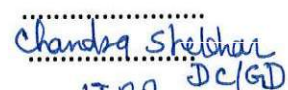
D. N. LAL
DY. INSPECTOR GENERAL OF POLICE (Provisioning)
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**QUALITATIVE REQUIREMENTS (QRS)/ SPECIFICATION OF
MAHILA POLYCARBONATE LATHI**

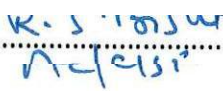
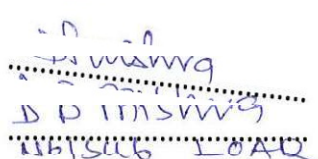
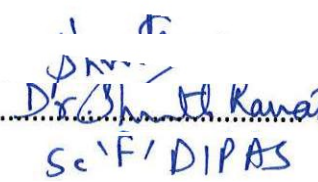
S. no.	Name	QR Specifications	Trial Directives
1.	Nomenclature	Mahila Polycarbonate Lathi	
2.	Uses	1) Mahila PC Lathi shall be used by Mahila troops during their deployment. It is self defence equipment for troops during their deployments in Riots or Riot like situations. 2) PC Lathi for Mahila troops required to be light weight and made of good quality material. It should have the resistance, flexible and easy to carry.	
3.	Colour	Should be Black	To be check by BOO/Line Committee
4.	Weight	Less than 300gm	
5.	Carriage	Hand Held / Integrated into polycarbonate shield	
6.	Shelf life	06 years (polycarbonate part minimum) Operational Life of LED: Approx 24hrs upon charging once Life of Continuous Spark:30minutes(minimum) Life of Battery: Minimum 1000charging cycles	
7.	Shape	Cylindrical shape.	
8.	Dimensions	Diameter	Inner :19mm Outer:25mm
		Length	900 mm with tolerance + 15 mm and -10mm including handgrip and shoe.
		Wall thickness	3mm

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 SC/F/DIPAS
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 SC/E
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5. Materials of construction	1) The main body of polycarbonate lathi shall be made of high impact resistant/ natural polycarbonate material. It may contain additives, processing aids and stabilizers (for example UV absorbers).			Certification from any NABL accredited Lab for the test conducted as per IS specified at column-4 with results as per values shown in column 2 (a), (b), (c), (d) & (e) of the table at SI No 8.	
	2. The material used for manufacture of polycarbonate sheet shall comply with the requirements as per column-3 when tested as per the prescribed IS of Column - 4				
	Sl. No.	Characteristics	Requirement		Method of test, Ref to IS/Annx
	(a)	Melt Flow Index , gram/10 min. (at 300° C under 1.2 Kg load when measured after pre-drying of the material at 120 ± 5°C upto 4 hrs)	i) 1.5 to 8 (for extrusion/ Thermoforming) ii) 8 to 15 (for injection moulding)		IS 13360 (Part 4 / Sec 1)
	(b)	Specific Gravity	1.19 to 1.22		IS 13360 (Part 3 Section 1)
	(c)	Flexural Modulus , Min, Mpa (With crosshead speed of 1.2 mm/min and a span to depth ratio of 16 to 1 (test specimen size, 04 mm x 10 mm)	2200		IS 13360 (Part 5 Section 7)
(d)	Izod Impact Strength , notched, min, kJ/m ² (test specimen thickness of 03 mm and notch radius of 0.25 mm)	60	IS 13360 (Part 5 Section 4)		
(e)	Deflection Temperature under load at 1.02 MPa, Min, °C	120	IS 13360 (Part 6 Section 17)		

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R. S. Puri
A.C/SI

Pushpa
S.D. Mishra
NBISUB LOAR

Dr. Shwetank
S.I.F. DIPAS

Dr. L. K. VARTI
S.I.F. DIPAS, DRDO

10.	Polycarbonates sheet characteristics	<p>1) Polycarbonate sheet formed from the above specified material shall comply with the requirements as per column-3 when tested as per the prescribed IS of Column-4 in the table below:-</p> <table border="1" data-bbox="539 309 1189 857"> <thead> <tr> <th>Sl. No.</th> <th>Characteristics</th> <th>Requirement</th> <th>Method of test, Ref to IS/Annx</th> </tr> <tr> <th>(1)</th> <th>(2)</th> <th>(3)</th> <th>(4)</th> </tr> </thead> <tbody> <tr> <td>(a)</td> <td>Dart drop Impact, Minimum J (at 27degree C)</td> <td>150</td> <td>Annx B of IS 14443</td> </tr> <tr> <td>(b)</td> <td>Light Transmission, percent, Minimum</td> <td>83</td> <td>IS 13360 (Part -9 Section - 5)</td> </tr> <tr> <td>(c)</td> <td>Flammability Test (test specimen thickness 3.18 mm +/- 0.13 mm)</td> <td>94 HB class</td> <td>IS 13360 (Part - 6 Section - 5)</td> </tr> </tbody> </table>	Sl. No.	Characteristics	Requirement	Method of test, Ref to IS/Annx	(1)	(2)	(3)	(4)	(a)	Dart drop Impact, Minimum J (at 27degree C)	150	Annx B of IS 14443	(b)	Light Transmission, percent, Minimum	83	IS 13360 (Part -9 Section - 5)	(c)	Flammability Test (test specimen thickness 3.18 mm +/- 0.13 mm)	94 HB class	IS 13360 (Part - 6 Section - 5)	
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11.	<p>(a) Protective Shoe/Stud specifications</p> <p>(b) Handgrip</p> <p>(c) Wrist band</p>	<p>(i) Length 25mm +/- 5mm. Ring shape, (ii) Properly fixed with lathi, firm, fire and water resistant. (iii) Made of Polymeric/Fiber or Rubber. (iv) Water should not be able to enter from bottom side., when used in zones with water clogging, puddles, etc</p> <p>(i) Length 14cm +/- 10 mm.</p> <p>(i) A wrist band made of cotton/ nylon shall be providing on the top of handgrip for providing security from lathi snatching. (ii) Length- loop diameter should be 6 to 8 inch</p>	<p>1) To be check by BOO/ Line committee 2) Certificate from any NABL accredited lab for fire/Water resistant of hand grip and protective shoe</p>																				

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Dr. L. R. VARTE
S.C.F.
DIPAS, DDUO

12.	Performance requirements of Mahila PC Lathi	(a)Resistance to Environmental Stress Cracking:- Environment Stress Cracking Resistance (ESCR) test shall be performed on polycarbonate body of the Lathi (with Protective coating) by constant strain method as per IS 1336(Part 8/Sec 9).	Certificate from any NABL accredited Lab
		(c)Resistance to Surface Abrasion:- The resistance of Polycarbonate lathi to surface abrasion shall be tested in accordance with ASTM D 1044 for 100 cycles under 500g load. Haze of test specimen shall not be more than 20 percent.	

As specified in the figure, the Mahila Polycarbonate Lathi has some added features by means of its electrical components, providing better deterrence against violent mob.

The Lathi comes well equipped with features meant to deterr and discourage the mob and mischief mongers, with its electrical discharge making a buzzing noise, threatening the approachers around. Also it contains a charged source (battery) that comes with inbuilt charger for easy recharging.

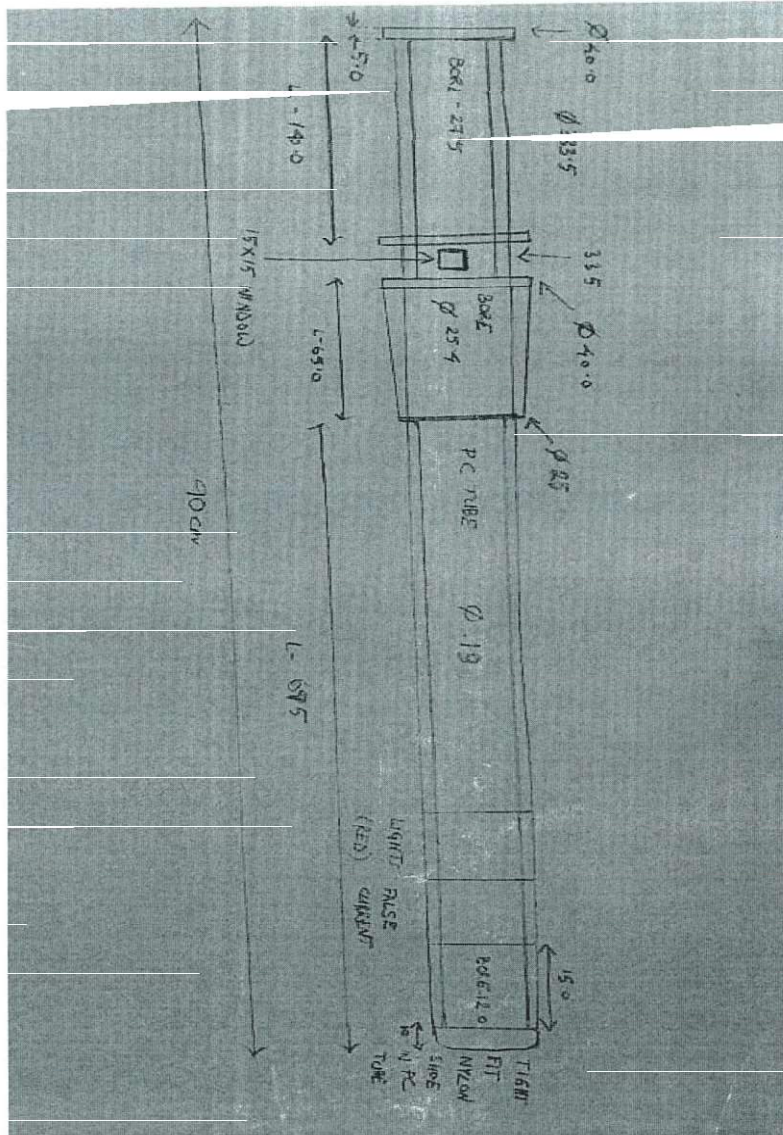
The details of the same are as follows:

SPECIFICATIONS FOR ELECTRICAL COMPONENTS

1. Power Supply	3.7 Volts 3000 mAh, Lithium ion rechargeable Cell
2. Resistance wires Glass Sleeves Output Wire Push Buttons	100 Ohms (2 Nos.) 0.5 sq mm multi strand copper core flexible insulated 3 Types with different ID 1.0 mm, (19 G) super enamelled Copper 12 * 12 * 10 MM
3. Operational Life of LED Life of Continuous Spark Life of Battery	APPROX. 24 HRS. CONTINUOUS 30 Minutes (Minimum) Minimum 1000 charging cycles.
4. Hand Grip, Wire Separator & Bottom Shoe Material	Through Injection Moulds Polycarbonate (Virgin)
5. Baton Material	POLYCARBONATE PIPE
6. Sizes: As Per Drawings Enclosed	Attached

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 S. I. D. M.

DIPAS MAHILA POLYCARBONATE LATHI



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