

Appendix-3

12.0 INPUT MATERIAL SPECIFICATION OF IGNITER BAG FOR BMCS M92:

12.1 PHYSICAL SPECIFICATIONS

Sl.	PROPERTIES	UNIT	Spec. limit	TOT No.(for Ref.)
1.1	Length	mm	180±5.0	TOT drawing No. 05304-000901-203
1.2	Width	mm	50±2.0	
1.3	Seam Width stitched with Blue Thread	mm	6±1.0	
1.4	Silk Ribbon Length	mm	195±5.0	
1.5	Silk Ribbon Width	mm	8±2.0	
Raw material Specification Reference			OFN/SPEC/RAW MAT/M92/IB/00	

12.2 LIST OF DRAWINGS

Sl.	Assembly/ Component	Nomenclature	OFN Drawing No.	TOT Drawing No.
1	Igniter Bag	Igniter Bag assembly for 155mm BMCS M92 (Empty)	BMCS-M92-IB-01	05304-000902-202
2		Body Igniter bag M92 for 155 mm BMCS M92	BMCS-M92-IB-02	05304-000901-203
3		Filled Igniter Bag Assembly for 155 mm BMCS M92	BMCS-M92-IB-03	05304-000900-202
4		Marking of Empty Igniter Bag Assembly for 155 mm BMCS M92	BMCS-M92-IB-04	05304-990900-222

12.3 SPECIFICATIONS OF RAW MATERIALS FOR IGNITER BAG:

Specification No. OFN/SPEC/RAW MAT/M92/IB/00

Sl.	Parameter	Unit	SPECIFICATION LIMITS	Spec Ref	Testing Ref	DCL
1	SPECIFICATION OF CLOTH					
1.1	Material		Acrylic Igniter cloth shall be woven from acrylic yarns spun from acrylic fibers containing 85% minimum polyacrylonitrile, no homopolymer shall be used.	MIL-C-13184 (AR) Amnd.4	MIL-C-13184 (AR) Amnd.4	Major
1.2	Colour		In all instances the cloth shall be dyed scarlet. The scarlet dye shall produce a colour closely equivalent to red colour 11086 to 11400 of Federal Standard no 595. The following type of dye stuffs may be used.	Federal Standard-595	Federal Standard-595	Minor
1.3	Appearance		Appearance of the cloth shall be uniform and free from visible imperfections	MIL-C-13184 (Ord)	MIL-C-13184 (Ord)	Major
1.4	Weight	Oz. per sq. yd	5.25 to 5.75	MIL-C-13184 (AR) Amnd.4	Fed Test STD 191A method no. 504 ¹	Major
1.5	Breaking Strength	lb per inch	WARP- 100 minimum FILL - 100 minimum	MIL-C-13184 (AR) Amnd.4	Fed Test STD 191A method no. 5100	Major

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For General Manager
Ordnance Factory NalandaOrdnance Factory Nalanda, Unit of Munitions India Ltd.
Govt. of India Enterprise, Ministry of Defence, Rajgir, Bihar-803121

Specification No. OFN/SPEC/RAW MAT/M92/IB/00

Sl.	Parameter	Unit	SPECIFICATION LIMITS		Spec Ref	Testing Ref	DCL
1.6	Stretch %	%	WARP- maximum 10.0 FILL- maximum 10.0		MIL-C-13184 (Ord)	Fed Test STD 191A method no 5100	Major
1.7	Thread Count	Threads per inch	WARP	34-45	MIL-C-13184 (AR) Amnd 4	Fed Test STD 191A method no 5050	Major
			FILL	35-45			
1.8	Ash Content	%	2.0 (max.)		MIL-C-13184 (Ord)	MIL-C-13184 (Ord)	Major
1.9	pH of Water Extract		7 ± 2		MIL-C-13184 (Ord)	MIL-C-13184 (Ord)	Major
1.10	Acidity or Alkalinity	%	Acidity as CH ₃ COOH – 0.1 % (max) Or Alkalinity as Na ₂ CO ₃ – 0.1 % (max)		MIL-C-13184 (Ord)	MIL-C-13184 (Ord)	Major
1.11	Ether Soluble Material	%	5 % (Maximum)		MIL-C-13184 (Ord)	MIL-C-13184 (Ord)	Major
1.12	Objectionable sizing		The Character and quality of the sizing material shall be such that there shall be no indication of smoldering when the cloth is ignited sufficiently to give a good flame and then extinguished.		MIL-C-13184 (Ord)	MIL-C-13184 (Ord)	Major
1.13	Halogens		None		MIL-C-13184 (Ord)	MIL-C-13184 (Ord)	Major
2	SPECIFICATION OF THREAD FOR SEWING						
2.1	Material		Thread polyester. Type I-Twisted soft multiple cord. Class 1- Low Elongation, sub class A		Fed Spec VT-285D	Fed Spec VT-285D	Major
2.2	Yarn		The yarn shall be bright, continuous multifilament polyester (Polyethylene Glycol terephthalate) having a specific gravity within the range 1.36-1.40		Fed Spec VT-285D	Fed Test STD 191A method no. 1600 and Visual	Major
2.3	Colour		Blue Dye- Olive Drab, Shade S-1, Related cable no C.A 66022 (The following combination of dyes are suggested: Disperse Blue 27, Disperse Red 59, Disperse Yellow 23)		Fed Spec VT-285D	Shade Matching - Fed Spec VT-285D 4.2.4.1 and Fed Test STD 191A method no. 9010	Minor
2.4	Twist Direction		The direction of the final twist shall be 'Z'		Fed Spec VT-285D	Fed Test STD 191A method no. 4050	Major
2.5	Physical requirement				Fed Spec VT-285D	Fed Test STD 191A method	
2.5.1	Letter Size		E		"	---	Major
2.5.2	Plies		3		"	Visual	Major
2.5.3	Final Twist	t.p.i	6.0 (min.)		"	4054	Major
2.5.4	Length per pound	yard	5700 (min.)		"	4010	Major
2.5.5	Breaking Strength	pou nds	8.0 (min.)		"	4100	Major
2.5.6	Elongation	%	20 (max.)		"	4100	Major

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Sl.	Parameter	Unit	SPECIFICATION LIMITS	Spec Ref	Testing Ref	DCL
3	SPECIFICATION OF SILK (VISCOSE RAYON) RIBBON					
3.1	Material		8±2.0 mm width silk (viscose rayon) ribbon tape. The tape shall be free from spinning, weaving and dyeing defects.	IS 10056 :1982	IS 10056 :1982	Major
3.2	Yarn	%	Multifilament viscose rayon yarn (100 % VISCOSE)	IS 10056 :1982	IS 667:1981 & IS 3416 :1988	Major
3.3	Mass	g/m	30g/20m (min)	IS 10056 :1982	IS 1964 :2001	Minor
3.4	Breaking Strength (full width X 20 cm) at 450 mm/ min rate	N	100 N (minimum)	IS 10056 :1982	IS 1969 :2009	Major

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Sl. No.	PARAMETER	SPECIFICATION LIMITS	Method	DCL
3.5	Visual Inspection			
3.5.1	Abrasion mark or weak spot	Any open place or any area visibly thinner or weaker than surroundings normal cloth.	Visual	Major
3.5.2	Broken or missing yarn	Any length	Visual	Major
3.5.3	Cut, Hole, Tear	Any size	Visual	Major
3.5.4	Floats or skips	Two or more, more than 5 mm in combined warp and weft direction or single floating over 25 mm in length	Visual	Major
3.5.5	Knots	Any knot extending above surface of cloth or with untrimmed tails extending from cloth	Visual	Major
3.5.6	Smash	Any	Visual	Major
3.5.7	Slubs, jerked in weft, slough off or coarse yarn	Three or more times diameter of normal yarn	Visual	Major
3.5.8	Overall appearance	Spots, stains or streaks extending for 25 mm or more in combined direction	Visual	Minor
3.5.9	Wrong draw	Two or more ends 12 mm or more in length or single, 225 mm or more in length.	Visual	Minor
3.5.10	Wrinkle or Crease	Hard embedded	Visual	Minor
3.5.11	Objectionable odour	Any	Visual	Minor
3.5.12	Uneven weaving	Any	Visual	Minor

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