

OK on 7.3.85

Latest

Plastic Furniture

(1)

SPECIFICATION NO CISA/150 (a)

Approved 3rd November '71

MATERIALS FOR PLASTIC FURNITURE  
OF RIFLE, 7.62mm, 1A1

1. This specification governs supply and inspection of materials for plastic furniture.

This specification or any pattern, drawings or other information issued in connection therewith, should only be used for specific enquiries, tenders or orders placed by a competent authority under Ministry of Defence and must not be used in other purpose whatsoever, without the sanction of the Director General of Inspection.

Scope

2. This specification is meant to govern supply and inspection of plastic materials, suitable for use in moulding plastic furniture of Rifle, 7.62mm, 1A1.

Description

3. The type of plastic materials which have been approved for moulding of Butt, Handguard, Grip — pistol and Handle carrying ~~and the source of supply of the same~~ are indicated in Appendix 'A'.

4. The colouring matter which is incorporated in the material shall be of such nature and proportions as to be capable of producing the intensity of colouration which shall be satisfactory to the Inspection Authority ~~and drawing requirements~~.

5. If the nature and proportion of colouring material are not stipulated, they shall be subject to the prior approval of the Inspection Authority.

Tender Sample

6. The contractor shall submit a tender sample of 2 kgs free of charge conforming to this specification when called for in the tender.

Testing

7. Samples taken from any portion of the supply shall be in accordance with the requirements given in Appendices 'A' & 'B'.

↳ the relevant spec. shown in  
Contd..... 2/

### Inspection

8. Plastics materials and the packages in which it is contained shall be subject to inspection and final approval of the Inspection Officer.

9. Samples of the material and of the packages, may be taken from any portion of a consignment.

10. If on examination any sample be found not to conform to the requirements of this specification, the whole consignment may be rejected.

### Packaging and Identification

11. The plastic materials shall be supplied in sound, clear and dry approved packages containing approved quantity.

Or

~~It~~ Packaging (Preservation, Identification and Packing) shall be in accordance with the terms of contract.

12. The packages, constituting a consignment shall each be legibly and durably marked with the following details :-

- (a) Description of contents
- (b) Contract Number
- (c) A distinctive lot Number
- (d) Nett weight
- (e) Date of supply
- (f) Contractor's initials or recognised trade mark

Dated, ICHAPUR,

the \_\_\_\_\_ Nov 1971

(MD RAO)  
Major  
Assistant Inspector  
Chief Inspector of Small Arms

APPENDIX 'A'

The following proprietary plastic materials have been approved or moulding of stores as shown :-

<u>Sl No</u>	<u>Name of Stores</u>	<u>Material Approved</u>	<u>MARKETED</u> <u>Made by</u>
1	Butt	<del>MARANYL A-127</del> ( <del>BROWN SHADE</del> ) <del>ALT. MATL. MARANYL A-100</del> MATERIAL: ( <del>BROWN SHADE</del> ) (NYLON 66 HEAT STABILISED TO SPECN. DEF. STAN. 93-B/1)	<del>Imperial Chemical Industries Ltd.</del>
2.	Handle Carrying	ALKATHENE COMPOUND B 11/04 BLACK/902	<del>— dc —</del>
3.	Pistol Grip	<del>MARANYL A-127</del> ( <del>BROWN SHADE</del> ) <del>ALT. MATL. MARANYL A-100</del> ( <del>BROWN SHADE</del> ) "NYLON 66 HEAT STABILISED TO SPECN. DEF. STAN. 93-B/1"	<del>Imperial Chemical Industries Ltd.</del>
4.	Guard Hand	<del>RHENOL FORMALDEHYDE IMPREGNATED CLOTH IN LAMINATED OR MACERATED AND LAMINATED FORM (Brown shade)</del>  OR <del>IMPREGNATED FABRIC (MACERATED/LAMINATED) Code No. HYLUM K-1996 (Manufactured by Bakelite Hylum Ltd.)</del>	<del>M/s Polymer products Co. Bombay.</del>
		COMPOSITE SANDWITCH LAMINATE STRUCTURE TO SPECIFICATION IND/ME/900 (PRV).	

-1-  
-2-  
B

APPENDIX 'B' (Contd)

ALKATHENE COMPOUND B 11/04 BLACK 902

The technical data of the above material is given below :-

Principal Application	....	Pipe and injection moulding
Principal Merit	....	Easy processing and good long term weatherability
Melt Flow Index	....	2.0
Density g/cc at 23°C	....	0.93

'Alkathene' B11/04 Black 902 is a compound based on 'Alkathene' WJC-11 (1) containing a nominal 2.5% carbon black in well dispersed form together with sufficient quantity of an antioxidant to provide long life in outdoor weathering.

The compound meets the requirements specified in I.S. 3076-'68, for extrusion of low density Polyethylene Pipes.

The compound may also be used for injection moulding items where good long term weathering properties are desired.

PROCESSING CONDITIONS

'Alkathene' B11/04 Black 902 can be satisfactorily processed in all standard extruders and injection moulding machines. The following temperature gradient is suggested as a general guide:

EXTRUSION

3 Barrel Zones	Crosshead	Die
115/130/145°C	145°C	145-150°C
Filter pack : 2 x 40 and 1 x 60 mesh		

INJECTION MOULDING

Cylinder temperature	: 260-280°C
Mould temperature	: 50°C

Contd.....<sup>2</sup>/<sub>4</sub>

APPENDIX 'B' (Contd)

PROPERTIES

Typical properties of 'Alkathene' B11/04 Black 902 are given below :-

Properties	Unit	Typical Value
<b>General</b>		
Melt Flow Index	-	2.0
Normal density at 23°C	g/cc	0.93
<b>Mechanical</b>		
Tensile strength	kg/cm <sup>2</sup>	120
Yield strength	kg/cm <sup>2</sup>	110
Elongation at break	%	500
<b>Thermal</b>		
Vicat Softening Point	°C	88
Low temperature brittle point °C (F50)	°C	Below 50°C