

7. INSPECTION

7.1 The vulcanised chloroprene rubber compound (Neoprene) and the packages in which it is contained, shall be subject to inspection by, and to the final approval of the Inspecting Officer/Inspection Authority.

7.2 Samples of the material and of the packages in which it is contained may be taken from any portion of the consignment.

7.3 If, on examination, any sample be found not to conform to this specification, the whole consignment is liable for rejection.

7.4 The foregoing provisions shall apply equally to prime contractors and to sub-contractors, if any.

8. SAMPLING

8.1 The number of samples to be drawn from each lot/consignment will be at the discretion of the Inspecting Officer.

9. TEST REQUIREMENTS

9.1 Samples drawn from any portion of the supply shall comply with clause 3 and 4 above and shall also conform to the following requirements,

3.6 The type of the mixes appended at Appendix 'E' shall be regarded as indicating the class of compositions which is considered suitable but depending on the brand of synthetic rubber used. It may be necessary for the contractor to adjust the proportions of carbon black or any of the vulcanising ingredients in order that the vulcanizate will comply with the requirements of the relevant class to this specification.

4. DESCRIPTION

4.1 The synthetic rubber must consist of suitable chloroprene polymer compounded with approved ingredients so that the composition is in accordance with requirements of this specification.

5. TENDER SAMPLE

5.1 Details of the composition of the mix which the contractor proposes to use together with test samples as given below shall be submitted to the Inspecting Officer for approval prior to the commencement of bulk manufacture.

5.1.1 The contractor shall submit, free of charge, one each of the following samples.

- i) Test slab size - 300 mm x 300 mm x (2.5 mm  $\pm$  0.25 mm thick)
- ii) Test slab size - 150 mm x 150 mm x (6.35 mm  $\pm$  0.125 mm thick)
- iii) Sample of finished stores -

A minimum of 100 grams which should contain atleast 3 Nos of actual size is normally required.

In case the finished component are of small dimensions and low weights, the quantum of samples required for tests, shall be decided by the Inspecting Officer on the merit of the case. However, these samples shall truly represent the bulk and their total mass shall not be less than 30 grams in such cases.

5.2 The samples will be manufactured from the mix proposed to be used by the contractor and for which declaration of the mix shall be given as per clause 3 above.

6. PRE-INSPECTION

6.1 Before tending the store to the Inspector, the supplier shall carry out a thorough inspection of each delivery to satisfy himself that the store fully conforms to this specification and shall render a certificate to that effect to the Inspecting Officer

THIS SPECIFICATION OR ANY PATTERN, DRAWINGS OR OTHER INFORMATION ISSUED IN CONNECTION THEREWITH MAY ONLY BE USED FOR A SPECIFIC ORDER PLACED BY THE COMPETENT AUTHORITY. IT IS NOT TO BE USED FOR ANY OTHER PURPOSE WHATSOEVER WITHOUT THE EXPRESS WRITTEN SANCTION OF THE DIRECTOR GENERAL OF INSPECTION, MINISTRY OF DEFENCE, NEW DELHI - 110 011.

QUALITY ASSURANCE

0. FOREWORD

0.1 This specification has been prepared by the Controllerate of Inspection (MILITARY EXPLOSIVES), KIRKEE, PUNE - 411 003.

QUALITY ASSURANCE

0.2 For additional copies or any other enquiry regarding this specification reference should be made to the Inspection Authority named in the tender of contract (i.e. CQA (ME) KIRKEE):

1. SCOPE

1.1 This specification is meant to govern manufacture, supply and inspection of Vulcanised Chloroprene Rubber Compounds (Neoprene).

1.2 This specification covers five synthetic rubber C<sub>40</sub> to C<sub>80</sub> (Chloroprene) Vulcanisates designated as compounds ~~C2 to C6~~. The compounds are classified according to their hardness (as shown in Table I below)

1.3 The vulcanisates are primarily intended to meet the requirements of items in which resistance to weather and certain organic liquids is a necessary property.

1.4 The material is suitable for use in the manufacture of items such as sheets, washers, strips, gaskets, moulded articles and wrapped tubing etc.

TABLE I

Class	Compound NO	Hardness (B.S. Rubber Hardness degrees)
C2	C 40	<del>41-50</del> 40 $\pm$ 5 -4
C3	C 50	51-60 50 $\pm$ 5 -4
C4	C 60	<del>51-70</del> 60 $\pm$ 5 -4
C5	C 70	<del>71-80</del> 70 $\pm$ 5 -4
C6	C 80	<del>81-90</del> 80 $\pm$ 5 -4

2. RELATED DOCUMENTS

2.1 The related documents mentioned at clause 2.2 are those applicable at the date of publication of this specification. It is contractor's responsibility to confirm their current applicability and to obtain from the Authority Holding Sealed Particulars (i.e. CQA (ME), KIRKEE) information concerning any change that may be necessary due to cancellation, replacement or supersession of any of these documents.

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IND/ME/884 (PROV)

Based on B.S. 2752 - 1956-1982 .

VULCANISED CHLOROPRENE RUBBER COMPOUNDS (NEOPRENE)

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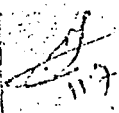
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DEPARTMENT OF DEFENCE PRODUCTION  
MINISTRY OF DEFENCE

AMENDMENT RECORD

Amendment	Dc (1) Date	Clauses affected	Remarks & Initials
Specification is Sealed Provisionally	<u>2394-ME</u> 11-7-81	---	
	<u>3309-ME</u> 26.5.95	Appendix B Line 4 & 6	
	<u>3495-ME</u> 6/2/98	P-1 Right hand Corners below Specification clause 1.4 under table I ② clause 9.2 physical	<u>VMO</u>

VULCANISED CHLOROPRENE RUBBER COMPOUNDS (NEOPRENE)  
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11. APPENDICES ( A, B, C, D AND E )

2.2 Copies of the related specifications in clauses 3.5 and 9 are obtainable as follows :

BS 903		Y
BS 903 -A-26	- 1969	Y
BS 903 A-2	- 1971	Y Indian Standards Institution
BS 903 A-19	- 1956	Y Manak Bhavan,
BS 903 A-6	- 1969	Y 9, Bahadur Shah Zafar Marg
BS 903 A-16	- 1971	Y NEW DELHI - 110 002.
BS-007	- 1965	Y
BS-805	- 1953 (Toluene)	Y
BS-1995	- 1962	Y
BS 2536	- 1954	Y
BS 2637/8	- 1956 (I Sooctane)	Y

3. COMPOSITION

3.1 Rubber Mix : The manufacture should prepare a suitable mix which on vulcanisation will give material conforming to the physical properties given in clause 9.2. The basic polymer may be Chloroprene Rubber. No reclaimed synthetic rubber, ground vulcanised scrap or waste rubber shall be used. The mix should also contain suitable plasticisers, softeners, fillers, accelerators, anti-oxidance, vulcanising agents etc. in requisite proportion.

3.2 All ingredients used in the mix shall be of good commercial quality and free from grit and extraneous materials.

3.2.1 Di-2-ethylhexyl phthalate and Di-2-ethylhexyl sebacate used in the mix shall be in accordance with specification BS:1995-1962 and BS:2530-1956 amended to date respectively.

3.3 The manufacturer shall give a declaration of the mix he proposes to use for manufacturing articles against a particular contract and this mix shall not be altered in any way during the period of contract without the written permission of the Inspecting Officer/Inspection Authority.

3.4 The compounding and processing must be such that the material may be calendered, extruded, moulded or otherwise fabricated and give after suitable vulcanization, a product free from grit, foreign matter and sulphur bloom and from defects such as blisters, porosity and surface imperfections and complying with all the requirements of clause 9. The material shall have a smooth surface.

3.5 Mix which as been found to give satisfactory material is appended at Appendix 'E' for guidance.

AMENDMENT RECORD

Amendment	DC(I) - No. & Date	Clauses affected	Remarks & initials
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~~3495-ME~~  
~~8/2/98~~

3751-ME  
12.12.2002

{ clause 1.2 Page 3  
 For comp C2 to C6  
 Read C4 to C8 }

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3754-ME  
12.12.2002

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