

NOTE.—The Institution desires to call attention to the fact that this Specification is intended to include the technical provisions necessary for the supply of the material herein referred to, but does not purport to comprise all the necessary provisions of a contract.

British Standards Institution.

Incorporated by Royal Charter.

FORMED IN 1901 AS THE ENGINEERING STANDARDS COMMITTEE.

INCORPORATED IN 1918 AS THE BRITISH ENGINEERING STANDARDS ASSOCIATION.

British Standard Specification for Aircraft Material.

FLEXIBLE COTTON ROPES.

1. **Description.** (a) The ropes shall be made of untreated cotton.
- (b) The ropes shall be 3-strand.
- (c) Two coloured yarns, one red and one blue shall be laid up in one of the three strands in each size of rope.

2. **Construction and Properties.** (a) The details of construction and the properties of each rope when determined under the conditions described in Appendix A and by the methods described in Appendices B, C and D shall comply with the requirements specified in the following Table:—

Size	1 in.	1½ in.	2 in.
Number of Threads per strand	13	25	21
Turns per foot in rope	14 ± 1	11 ± 1	8 ± 1
Circumference in inches	1 ± ¼ ₆	1¾ ± ¼ ₆	1⅞ ± ¼ ₆
Maximum Weight per 100 fathoms in lb.	20	40	62
Minimum Breaking Strength in lb.	850	1 600	2 500

(b) As regards any properties or qualities not defined in this specification supplies shall be in accordance with the respective standard patterns.*

3. **Selection of Test Samples.** Coils of the same size of rope shall be grouped in parcels of not more than 10. One coil shall be selected by the Inspector from each parcel and a test sample cut therefrom as required by the Inspector.

*To be obtained from the Offices of the British Standards Institution, 28 Victoria Street, London, S.W. 1. (See overleaf for scale of charges.)

APPENDIX A.

Humidity and Temperature Conditions during Testing.

The tests described in Appendices B, C and D shall be carried out under ordinary atmospheric conditions but in cases of dispute the specimens shall be conditioned for not less than 48 hours in an atmosphere with a relative humidity of 65 per cent and a temperature of 70° F. (21·1° C.) and then tested under the same conditions.

APPENDIX B.

Method for the Determination of Weight.

The test specimen shall be subjected for one minute to a load equal to the maximum specified weight per 100 fathoms, and the length of specimen used for determining the weight shall be measured under this tension.

APPENDIX C.

Method for the Determination of Turns per Foot in Ropes.

Five specimens shall be taken from the selected test sample. Each specimen shall be held at both ends in an approved machine and a load equal to 2 per cent of the specified breaking load shall be applied. The average number of turns per foot shall then be determined.

APPENDIX D.

Method for the Determination of Breaking Strength.

The specimen shall be fixed in an approved testing machine so that the length between the supports is not less than 4 ft. 6 in. The load shall be gradually and continuously increased at such a rate that the specified breaking load is reached in not more than three minutes or less than one minute after the commencement of the application of the load.

This Specification having been approved by the Aircraft Industry Committee and endorsed by the Chairman of the Engineering Divisional Council, was published under the authority of the General Council of the Institution as a British Standard on 4th May, 1936.

NOTE.

In order to keep abreast of progress in the Industries concerned, the British Standard Specifications are subjected to periodical review.

Suggestions for improvements, addressed to the British Standards Institution, 28 Victoria Street, London, S.W. 1, will be welcomed at all times. They will be recorded and in due course brought to the notice of the Committees charged with the revision of the Specifications to which they refer.

Scale of Charges for Standard Patterns.

1 in. Rope	-	-	-	9d. each ; Post free* 1/-
1½ in. „	-	-	-	1/- „ „ „ 1/3
2 in. „	-	-	-	1/3 „ „ „ 1/6

*Extra for Colonial and Foreign addresses.