

Specification for

Braided nylon cord with specified dimensional stability for aerospace purposes

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Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Aerospace Standards Committee (ACE/-) to Technical Committee ACE/22 upon which the following bodies were represented:

- British Association of Clothing Machinery Manufacturers
- British Narrow Fabrics Association
- British Textile Employers' Association
- Cordage Manufacturers' Institute
- Lambeg Industrial Research Association
- Linen Sewing Thread Manufacturers' Association
- Man-made Fibres Producers' Committee
- Ministry of Defence
- Society of British Aerospace Companies Ltd.
- Society of Dyers and Colourists

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Foreword

This British Standard, prepared under the direction of the Aerospace Standards Committee, is one of a series for textiles of a quality suitable for aerospace purposes. During its preparation account has been taken of the fact that basic quality requirements are included in the latest edition of BS F 100.

This standard specifies requirements for braided nylon cord with specified dimensional stability manufactured from twist set yarn as previously defined in Ministry of Defence DTD Specification 5620, which this standard replaces. It differs from DTD Specification 5620 primarily in that prestabilized yarns are now permitted.

Braided nylon cord with unspecified dimensional stability, manufactured from non-twist set yarn and/or twist set yarn, as previously defined in Ministry of Defence DTD Specification 5620, is specified in BS F 135.

The quality assurance authority referred to in this standard is as stated in the contract or order, or the accredited representative of the authority stated, as instructed by the prime constructor.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 8, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

1 Scope

This British Standard specifies the requirements for braided nylon cord with specified dimensional stability, manufactured from twist set yarn for aerospace purposes.

NOTE 1 The titles of the publications referred to in this standard are listed on the inside back cover.

NOTE 2 The latest revision of an Aerospace Series standard is indicated by a prefix number.

2 General requirements

In addition to the requirements specified in clauses 3 to 6 of this standard, the following clauses of the latest edition of BS F 100 shall apply.

Section	Title	Requirements and tests
1	General	All requirements.
2 ^a	Quality requirements	Requirements for the manufacture of cordage only. Requirements for dyed textiles except for those relating to fabric intended for coating. Requirements for dimensions and tolerances of lengths of cordage except those relating to laid ropes. Requirements for freedom from corrosive impurities (see section 4). Requirements for freedom from defects of braided cordage only
3	Physical tests	Tests for mass of narrow fabrics and cordage. Tests for breaking strength and extension under load. Tests for sheath slackness and core looping of braided cordage. Tests for plaits per unit length in braided cordage.
4	Chemical tests	If required by section 2, further tests for freedom from corrosive impurities.
^a It is not intended that section 2 tests should be performed on each cord batch. The frequency of these tests should be agreed between the quality assurance authority and the thread manufacturer.		

3 Yarn

3.1 The cord shall be manufactured from continuous filament bright nylon 6.6 yarns, which shall have the tenacity and extension at break as given in Table 1.

Table 1 — Yarn properties

Nominal dtex	78	235	940
Nominal number of filaments	34	34	140
Tenacity (cN/tex)	68–75	68–77	71–82
Extension at break (%)	13–18	13–20	13–22

3.2 The yarn shall comply with the properties given in Table 1 to the satisfaction of the quality assurance authority when assessment is based on the manufacturer's quality control procedures.

NOTE In case of dispute the tenacity and extension at break results shall be determined by the method of test and sampling given in BS 1932-1 and BS 2010.

3.3 The yarn shall not be sized.

4 Construction and properties

4.1 General

4.1.1 The cords shall be braided from yarns which comply with the relevant requirements of Table 1 to Table 7.