

Methods of test for

Elastomeric threads —

Part 2: Polyurethane thread (elastane
yarn)

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- British Association of Synthetic Rubber Manufacturers
- British Rubber Manufacturers' Association
- Department of Industry (Chemicals and Textiles)
- Institution of Production Engineers
- Malaysian Rubber Producers' Research Association*
- Ministry of Defence
- Rubber and Plastics Research Association of Great Britain
- Rubber Growers' Association
- Society of Motor Manufacturers and Traders Limited

The organization marked with an asterisk in the above list, together with the following, was directly represented on the committee entrusted with the preparation of this British Standard:

- British Man-made Fibres Federation
- Hosiery and Allied Trades Research Association
- Narrow Fabrics Federation
- Individual experts

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Foreword

This British Standard has been prepared under the direction of the Rubber Standards Committee.

Polyurethane thread (elastane yarn) is manufactured elastomeric fibre, in which the fibre-forming substance is a long chain synthetic polymer which consists of at least 85 % of a segmented polyurethane (see BS 4815).

It should be noted that direct comparisons may be made only on new polyurethane threads or those of identical processing histories. In the interpretation of results concerning threads that have been subjected to spooling, fabrication, or other processes, the previous history is important, and what is known of this and any relaxation treatments used should be stated.

Attention is drawn to Part 1 of this standard which covers methods of test intended primarily for natural or synthetic polyisoprene rubber thread.

For users of this standard who may not be familiar with the International System of units (SI) as applied in these methods, the following explanations may be helpful.

a) newton (N)

The newton (N) is the unit of force. One newton (1 N) is the force which, when applied to a body having a mass of one kilogram (1 kg), imparts to it an acceleration of one metre per second squared (1 m/s²).

b) tex

Tex is the unit of linear density used in the textile industry. A fibre which has a mass of M grams per 1 000 metres of length is said to have a linear density of M tex. 1 tex = 10⁻⁶ kg/m.

c) centinewton per tex (cN/tex)

The centinewton per tex (cN/tex) is the unit used to quantify all expressions of force per linear density (breaking load and pretension).

For further explanation, reference should be made to BS 3763 and to PD 5686.

The methods in this Part of BS 5421 have been submitted for consideration to Technical Committee ISO/TC 45 — Rubber and Rubber Products, of the International Organization for Standardization (ISO).

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Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 10, 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.

