

Specification for

Polyamide (nylon) mountaineering ropes

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The Government departments and scientific and industrial organizations listed below were represented on the committee entrusted with the preparation of this British Standard:

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 Dock and Harbour Authorities' Association
 Federation of Soft Fibre Associations
 Hard Fibre Cordage Institute
 Lloyd's Register of Shipping
 London Master Stevedores' Association
 Ministry of Defence, Air Force Department
 Ministry of Defence, Army Department*
 Ministry of Defence, Navy Department
 Ministry of Technology
 Synthetic Cordage Manufacturers' Association*

The Government department and scientific and industrial organization marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this British Standard:

Association of Scottish Climbing Clubs
 British Man-made Fibres Federation
 British Mountaineering Council
 Individual Manufacturers
 Mountaineering Association

This British Standard, having been approved by the Ropes and Cordage Industry Standards Committee, was published under the authority of the Executive Board on 19 February 1970

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The following BSI references relate to the work on this standard:
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Amendments issued since publication

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1048	December 1972	
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Foreword

This standard makes reference to the following British Standard:

BS 3977, *Polyamide (nylon) filament ropes (hawser laid.)*

This British Standard provides requirements for polyamide (nylon) mountaineering ropes and will assist manufacturers by standardizing a limited range of sizes.

The duty to which a mountaineering rope is exposed in emergency may be very severe, particularly in the case of rock climbing, but the conditions imposed are so diverse and so dependent on chance that they cannot be determined by any process of experiment or calculation. The requirements herein have therefore been specified on the basis of current good practice.

Compliance with these requirements provides the additional safeguard that other desirable properties, not specifically mentioned in the standard, are also obtained. Nonetheless, research and development should continue, with the aim of producing mountaineering ropes of even better performance and durability.

Four sizes of rope are specified to cover the different uses to which ropes are put in mountaineering. The inclusion of the smaller sizes does not imply a recommendation that they are suitable for all purposes. The loads which may be imposed on mountaineering ropes in emergency depend on their use, but may be great in relation to their size. Furthermore, experience has shown that there are hazards of severe mechanical damage, and some risk of failure must be recognized. This risk is reduced as the size of rope is increased and it is recommended that the heaviest rope consistent with ease of handling be used always. The most severe hazards may occur in rock climbing, for which the heaviest rope (No. 4) is recommended when a single rope is used. When using a double rope for rock climbing a No. 3 rope is recommended.

In the present revision changes have been made to the performance requirements and to the test procedures in the light of current practice. In particular, changes have been made in the requirements for maximum length of 10 lays, the reference tension under which measurements are determined, conditioning for testing, and the clauses relating to flexibility and stability requirements have been amplified. For the first time a method of verifying the effectiveness of heat stabilization has been included.

The minimum breaking load of rope No. 4 has been increased from 4 200 lb (1 905 kg) to 2 040 kg.

NOTE The metric values given in this specification are the standard requirements. Values given in imperial units are for information only.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 6, 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.