

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 1140

THREE-STRAND POLYAMIDE MULTIFILAMENT ROPES

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BRIEF HISTORY

The ISO Recommendation R 1140, *Three-strand polyamide multifilament ropes*, was drawn up by Technical Committee ISO/TC 38, *Textiles*, the Secretariat of which is held by the British Standards Institution (BSI).

Work on this question led to the adoption of a Draft ISO Recommendation.

In April 1968, this Draft ISO Recommendation (No. 1343) was circulated to all the ISO Member Bodies for enquiry. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

| | | |
|----------------|-----------------------|----------------|
| Belgium | Israel | Spain |
| Czechoslovakia | Japan | Sweden |
| Denmark | New Zealand | Switzerland |
| France | Norway | Turkey |
| Germany | Poland | U.A.R. |
| Hungary | Portugal | United Kingdom |
| Iran | Romania | U.S.S.R. |
| Ireland | South Africa, Rep. of | |

Five Member Bodies opposed the approval of the Draft:

| | |
|-----------|-------------|
| Australia | Italy |
| Brazil | Netherlands |
| India | |

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in November 1969, to accept it as an ISO RECOMMENDATION.

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THREE-STRAND POLYAMIDE MULTIFILAMENT ROPES

1. SCOPE

This ISO Recommendation specifies the essential characteristics of three-strand ropes consisting of continuous multifilaments belonging to the polyamide group, of a relative density of approximately 1.14. It applies to ropes of this type whose net mass per metre is between 10 and 6000 g and whose nominal diameters are from 4 to 96 mm inclusive.

2. MANUFACTURE

2.1 Construction

The ropes should be formed of strands manufactured from new material. The ropes and strands should be continuous without splices.

When agreed between the purchaser and supplier, ropes of nominal diameter equal to 20 mm (net mass per metre of 260 g) or more may have a core in the strands consisting of continuous multifilaments without twist.

Polyamide ropes, unless otherwise specified, should be made of strands twisted together with a Z lay, these strands themselves being made with an S lay.

The number of yarns, or yarns and untwisted multifilaments, should be the same for all the strands in the rope.

2.2 Treatment

Ropes should be heat treated to set the lay and obtain dimensional stability.

Polyamide ropes are generally supplied in the natural state, i.e. without any impregnation or coating treatment. At the request of the purchaser they may be coated or impregnated in order to give special characteristics.

The nature of the coating or impregnation substance should be left to the discretion of the manufacturer. The treatment applied should not reduce the tensile strength of the rope.

The amount of substance applied should not increase the mass per metre given in the Table by more than 5 % unless specially agreed between manufacturer and purchaser.

3. REQUIRED CHARACTERISTICS AND TOLERANCES

The main characteristics of three-strand polyamide multifilament ropes should be as given in the Table.

The pitch of these ropes should be as given in the Table, except when otherwise agreed between purchaser and supplier.

Other characteristics, e.g. the elongation of the ropes under given tensile conditions, may also be specified by agreement between manufacturer and purchaser, possibly on the presentation of a sample.

4. METHODS OF TEST

The characteristics given in section 3 should be measured under the conditions indicated in ISO Recommendation R . . . *, *Testing of ropes*.

5. MARKING AND PACKING

5.1 Marking

Ropes of a nominal diameter of 16 mm (net mass per metre of 166 g) or more should include a green man-made multifilament marker yarn in one strand. Smaller ropes should have no marker yarns, unless otherwise agreed between purchaser and manufacturer.

5.2 Packing

Ropes should be invoiced on the net weight basis, which includes lashings, but not packing materials. Coil lashings should be of man-made fibre material.

* In preparation.