



रेशो से बनी रस्सियाँ –
पॉलीप्रोपाइलीन स्प्लिट फिल्म,
मोनोफिलामेंट और मल्टीफिलामेंट –
3-, 4-, 8- और 12- लट वाली रस्सियाँ
IS 5175 : 2026 के अनुसार

PRODUCT MANUAL
For Fibre Ropes — Polypropylene Split
Film, Monofilament and Multifilament -
3-, 4-, 8- and 12- Strand Ropes
ACCORDING TO IS 5175 : 2026

विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम, 2018 की योजना -I के तहत प्रमाणन के संचालन में एकरूपता और पारदर्शिता के लिए इस उत्पाद मैनुअल का उपयोग सभी क्षेत्रीय / शाखा कार्यालयों और लाइसेंसधारियों द्वारा संदर्भ सामग्री के रूप में किया जाएगा। दस्तावेज़ का उपयोग बीआईएस प्रमाणन प्राप्त करने के इच्छुक संभावित आवेदकों द्वारा भी किया जा सकता है।

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure uniformity of practice and transparency in operation of certification under Scheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations, 2026 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification.

1.	मानक संख्या IS No.	: IS 5175:2026
	शीर्षक Title	: Fibre Ropes — Polypropylene Split Film, Monofilament and Multifilament — 3-, 4-, 8- and 12 Strand Ropes
	संशोधनों की संख्या No. of amendments	: NIL
2.	नमूना दिशानिर्देश Sampling Guidelines	
a)	कच्चा माल Raw material	: Raw material shall be in accordance with clause 7 of IS 5175: 2026. Note: This section indicates the requirements for raw material (if specified in the IS) for which compliance is to be established during Grant of Licence/Change in Scope of Licence/Factory Surveillance.
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	: Please refer Annex - A

c)	नमूने का परिमाण Sample Quantity	: 10 meter Note: This section indicates the quantity of the sample of the product and/or the raw material (if applicable), required to be sent to the laboratory for testing, for the purpose of Grant of Licence/Change in Scope of Licence/ Factory Surveillance (in case of market surveillance, effort may be made to procure the required quantity of product sample, as far as possible since raw material sample may not be available in market).
d)	परीक्षण अनुरोध में घोषित किए जाने वाले पैरामीटर Parameters to be Declared in Test Request	: • Type • Grade (if applicable) • Size • Material • Rope Termination Note: Apart from the above, any other requirements/ parameters may also be declared as per the standard, as applicable.
3.	परीक्षण उपकरणों की सूची List of Test Equipment	: Please refer Annex –B
4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	: Please refer Annex - C
5.	एक दिन में संभावित परीक्षण Possible tests in a day	
	All tests (provided samples are already conditioned). Note: This section is for the guidance of BIS Certification Officers/Technical Auditors of BIS Authorized Outside Surveillance Agencies (OSAs) during factory inspection to provide ready reference regarding the tests which can be witnessed during the inspection in the factory by the officer/auditor.	
6.	लाइसेंस का दायरा /Scope of the Licence:	
	Licence is granted to use Standard Mark as per IS 5175 : 2026 with the following scope:	
	Name of the product	Fibre Ropes — Polypropylene Split Film, Monofilament and Multifilament — 3-, 4-, 8- and 12 Strand Ropes
	Type	A/B/L/T
	Grade (if applicable)	EHS/HS/MS/LS/ELS
	Size	Reference number (approximate diameter in mm)
	Material	Virgin: Split/Mono/Multifilament Recycled: Split/Mono/Multifilament
	Rope Termination	Unspliced ropes/ropes with eye spliced terminations

ANNEX-A

GROUPING GUIDELINES

For the purpose of Grant of Licence/Change in Scope of Licence, the fibre ropes are classified according to the reference number (size) and the tolerances on linear density into the following groups:

Group	Type	Material (as applicable)	Grades (as applicable)	Reference Numbers (as applicable)
Group I	A/B/L/T	Virgin: Split/Mono/Multifilament Recycled: Split/Mono/Multifilament	EHS/HS/MS/L S/ELS	From 4 up to and including 10
Group II				From 12 up to and including 36
Group III				From 40 up to and including 160

Based on the above, the following grouping guidelines have been prepared for Grant of Licence/Change in Scope of Licence:

- The manufacturer shall declare the materials (i.e. Split/Mono/Multifilament) intended to be used to make ropes as per this standard. From **each group**, sample of the **highest size (reference number) of each type (as applicable) and of each material (as applicable)** shall be tested to cover the range of sizes of that type and material within that group. Further, for a particular type of material (i.e. Split/Mono/Multifilament), Samples for ropes manufactured from Virgin and Recycled Material shall be drawn and tested separately.
- However, either unspliced or eye-spliced sample may be drawn for covering both unspliced and eye-spliced ropes in scope of licence.
- In addition to above, if ropes with higher strength grade (EHS>HS>MS>LS>ELS) is tested, then ropes with lower strength grades may also be covered in the scope of licence. For Example: if ropes of EHS grade is tested for a particular Group, then ropes of HS, MS, LS & ELS grades may also be included in the scope of licence. Similarly, if HS is tested, then ropes of MS, LS, ELS grades may also be included in the scope and same applies for ropes tested for MS & LS.
- However, it shall be ensured that the manufacturer has got complete manufacturing as well as testing facilities for the sizes required to be covered in the scope of the licence.
- Scope of licence shall be restricted based on the manufacturing and testing facilities available.
- During operation of licence, samples of each variety covered in the scope of licence, shall be tested in rotation, to the extent possible

ANNEX – B

LIST OF TEST EQUIPMENTS
(INDICATIVE LIST, FOR GUIDANCE ONLY)

Sr. No.	Tests used in with Clause Reference	Test Equipment/Chemical
1.	Diameter, Braid Pitch or lay length, Clause 8.6	Measuring tape, Vernier Caliper (LC-0.1 mm)
2.	Minimum Breaking Force, Clause 9 & Table 1-10	Constant rate of traverse type Tensile Testing Machine
3.	Linear Density, Clause 9 & Table 1-10	Measuring Scale, measuring tape (LC-1 mm), Tension Device, Thermo Hygrometer, Air conditioner, Weighing Balance (capable of weighing to an accuracy of 1%)
4.	Length of coil, Clause 9.5	Measuring tape
5.	Mass of coil, Clause 9.6	Weighing Equipment

ANNEX – B

SCHEME OF INSPECTION AND TESTING

1. QUALITY ASSURANCE PLAN

1.1 It is expected that during operation of BIS licence, manufacturers will implement a Quality Assurance Plan (QAP) i.e. a plan of regular testing and in-process controls, designed to ensure that the product bearing the Standard Mark conforms to all requirements of the Indian Standard.

1.2 The manufacturers shall define a Quality Assurance Plan (QAP) defining the control unit (i.e. lot/batch etc.), the levels of control (i.e. the frequency and number of samples for conducting the different tests as per the Indian Standard) and declare the arrangement for testing i.e. whether in-house or subcontracting/sharing for each applicable test and submit the same to BIS Branch Office for information. The manufacturer shall comply with the QAP and maintain test records in accordance with para 2.1.

1.3 RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT:

1.3.1 For the guidance of manufacturers, the recommended definition of control unit is: The total quantity of rope of a particular type, grade (if applicable), material and reference number manufactured from same batch of polymer/yarn (as applicable) in a day.

1.3.2 For the guidance of manufacturers in preparing the Quality Assurance Plan, recommended levels of control are given in **Table 1**. Manufacturer has the discretion of declaring their own levels of control or accept the levels of control given in this document.

1.3.3 The manufacturer shall ensure inspection and testing as per the Quality Assurance Plan submitted by them on the whole production of the factory which is covered by this plan.

2. ENSURING COMPLIANCE THROUGH TESTING- manufacturers shall ensure compliance of their products to all the requirements of the Indian Standard for which they may have in-house test facilities. However, there is no obligation to maintain in-house laboratory. Licensee may use alternative arrangements for tests of the production as per the declared QAP. Various alternatives are available for operation of BIS certification as given below and the relevant guidelines for availing such relaxations by the manufacturers, as amended from time to time, are to be referred:

- i) Shared testing resources like common facility,
- ii) Cluster based testing facility,
- iii) Sub-contracting to outside laboratories which may either be:
 - a) BIS recognised/empanelled laboratories, or
 - b) Any accredited laboratory as per ISO/IEC 17025

2.1 TEST RECORDS- The manufacturers shall maintain test records for the tests carried out (either in-house or at a sub-contracted or at shared test facility) to establish conformity of the product to the Standard for operation of licence. For the tests being subcontracted or conducted at a shared test facility, test results issued by the laboratories or test facilities, shall be made available for inspection by BIS.

3. PACKING AND MARKING- The Standard Mark as given in the Schedule of the license shall be incorporated legibly and indelibly on BOPP printed transparent tape and the label attached at both ends of each coil, provided always that the material so marked conforms to each requirement of the specification.

3.1 Packing and Marking shall be done as per the Indian Standard.

3.2 **Additional Marking requirements:** Additionally, the following shall also be marked on BOPP printed transparent tape and the label attached at both ends of each coil:

a) “For BIS certification details please visit www.bis.gov.in”

4. REJECTION - The production which conforms to the Indian Standard and covered under the scope of this licence shall be marked with the Standard Mark. Disposal of non-conforming product shall be done in such a way so as to ensure that there is no violation of provisions of BIS Act, 2016.

Table 1
(Recommended Levels of Control By BIS- For Guidance Only)

(1)				(2)		
Test Details				Recommended Levels of Control		
Cl.	Requirement	Test Methods		No. of Sample	Frequency	Remark
		Clause	Reference			
7	Raw Material	7	IS 5175	Firm to have adequate in-process controls to check compliance of this parameter as given in the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity.		
8	Manufacture	8	IS 5175			
9.1, 9.2, 9.3, 9.4	Linear Density	9.1, 9.2, 9.3, 9.4	IS 7071	One	Each control unit	
9.1, 9.2, 9.3, 9.4	Minimumbreaking strength	9.1, 9.2, 9.3, 9.4	IS 7071	One	Each control unit	
9.5	Length of coil	--	IS 7071	Firm to have adequate in-process controls to check compliance of this parameter as per the tolerances given in the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity.		
9.6	Mass of coil	9.6	IS 5175			