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उत्पाद मैनुअल

Mixed Polyolefin Fibre Ropes

IS 14929 : 2022 के अनुसार

**PRODUCT MANUAL
FOR Mixed Polyolefin Fibre Ropes
ACCORDING TO IS 14929 : 2022**

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, 2018 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification.

1.	मानक संख्या IS No.	:	IS 14929 : 2022
	शीर्षक Title	:	Mixed Polyolefin Fibre Ropes
	संशोधनों की संख्या No. of amendments	:	02
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	The rope shall be constructed using bi-component fibres made of a blend during extrusion of polypropylene and of polyethylene, with a minimum of 15 % and a maximum of 50 % of polyethylene. <i>Compliance to the above may be established through supplier test certificate/test report from BIS recognized lab/empanelled lab or any other lab having accreditation as per IS/ISO/IEC17025 or in-house testing/combination thereof.</i> 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 to Annex-A
c)	नमूने का परिमाण Sample Quantity	: 10 metres 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)
3.	परीक्षण उपकरणों की सूची List of Test Equipment	: Please refer to Annex-B
4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	: Please refer to Annex-C
5.	एक दिन में संभावित परीक्षण Possible tests in a day	
	Construction, manufacture, lay, Linear Density and Min. Breaking Force may be tested in a day on preconditioned samples. 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 14929 : 2022 with the following scope:	
	Name of the product	Mixed Polyolefin Fibre Ropes
	Varieties/Type/Grades etc.	Type A/B/L/T
	Reference Number (Approx. dia. in mm)	As per table 1, 2, 3 & 4 as applicable

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9, BAHADURSHAH ZAFAR MARG,
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ANNEX-A

GROUPING GUIDELINES

- i. 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	Reference Numbers (Range)
Group I	Type A	4 to 8
Group II	Type B	6 to 8
Group III	Type A/B	10 to 14
Group IV	Type A/B	16 to 96
Group V	Type L/T	6 to 8
Group VI	Type L/T	10 to 14
Group VII	Type L/T	16 to 144

- ii. From each group, sample of the highest size (reference number) of each type may be tested to cover the range of sizes of that type within that group.
- iii. Either Unspliced or Spliced (Ropes with eye-spliced terminations) rope may be drawn to cover both types.
- iv. Scope of licence shall be restricted based on the manufacturing and testing facilities available.
- v. 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)

Sl. No.	Tests Used In With Clause Reference	Test Equipment/Chemical
1	Construction, Manufacture, Cl. 6.2	Vernier caliper, Measuring scale, Weighing Scale
2	Reference Number (diameter), Linear density, Cl. 7	Rope gauge/ vernier caliper, weighing balance capable of weighing to an accuracy of 1 percent, measuring tape, Tensioning device/Tensile testing machine
3	Minimum breaking force, Cl.7	Tensile testing machine – Constant rate traverse type, as per IS 7071, Measuring tape, conditioning chamber

ANNEX C

SCHEME OF INSPECTION AND TESTING

1. QUALITY ASSURANCE PLAN

1.1 It is expected that manufacturers (licensees/applicants) will implement a Quality Assurance Plan 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 defining the control unit (i.e. lot/batch etc.) and the levels of control (i.e. the frequency and number of samples for conducting the different tests as per the Indian Standard) and submit the same to BIS Branch Office for information. The manufacturer shall comply with the same and maintain test records in accordance with para 2.4.

1.3 RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT:

1.3.1 For the guidance of manufacturers, the recommended definition of control unit is: All ropes of same type and reference number manufactured 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**.

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. Alternatively, the manufacturer has the option of adherence to the quality plan as per levels of control recommended in column 3 of Table 1.

1.4 However, all manufacturers shall ensure compliance of their products to all the requirements of the Indian Standard.

2. ENSURING COMPLIANCE THROUGH TESTING- It is expected that manufacturers (licensees/applicants) will establish a suitably equipped and staffed in house laboratory (In house testing facility) for testing at least those parameters of the Indian Standard which require routine testing for ensuring quality of the product. This includes in-process controls as may be defined and put in place by the manufacturer and testing parameters/requirements which can only be performed in the factory.

2.1 For the guidance of manufacturers, Table 1 giving the recommended levels of control is given below. Column 2 of Table 1 indicates routine tests where test equipment is required in house as "R" or other tests which can be subcontracted as "S". Subcontracting is permitted to BIS recognized/empanelled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

2.2 For MSME manufacturers, the requirement of maintaining a laboratory/in-house testing facility for routine tests (indicated as "R" in Column 2 of Table 1) is also optional.

2.2.1 MSME manufacturers may utilize common cluster based facilities as per guidelines for the utilization of cluster based test facilities by MSMEs or the provisions of Sharing of testing facilities or get testing done from BIS recognized/empaneled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

2.3 Large Scale manufacturers shall maintain an in-house laboratory equipped at least with test facilities for routine tests (indicated as “R” in Column 2 of Table 1), where different tests given in the specification shall be carried out in accordance with the method given in the specification. They shall also implement a calibration plan for the in-house test equipment.

2.3.1 Alternatively, in lieu of an in-house laboratory, large scale manufacturers can also utilize the provisions of Sharing of testing facilities as per the Guidelines for Grant of Licence available on BIS website www.bis.gov.in. (Under Conformity Assessment>Product Certification Process). Even for subcontracted tests, provisions for sharing of testing facilities can be utilized.

2.4 TEST RECORDS- The manufacturers maintaining an in-house laboratory or utilizing common cluster based facilities or shared test facilities shall maintain test records for the tests carried out to establish conformity. For the tests being subcontracted to BIS recognized/empanelled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025, test reports issued by the laboratories shall be available for inspection by BIS.

3. PACKING AND MARKING - The Standard Mark as given in the Schedule of the licence shall be incorporated legibly and indelibly on the labels securely attached at both ends of each coil of fibre ropes, 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: The material shall also be marked with the following additional requirement on the labels securely attached at both ends of each coil of fibre ropes:

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

4. REJECTION - All 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
(ONLY FOR GUIDANCE PURPOSE)

(1)				(2)	(3)		
Test Details				Test equipment requirement	Levels of Control		
Cl.	Requirement	Test Methods Clause Reference		R: required (or) S: Sub-contracting permitted	No. of Sample	Frequency	Remarks
5	Materials		IS 14929:2022	S	One	Each consignment	Conformity of material may be established through raw material supplier's test certificates or test reports of BIS recognized/empaneled labs or NABL accredited labs or in house testing.
6.2	Construction and manufacture		IS/ISO 9554:2019	R	Manufacturer shall have adequate inspection/in process controls to ensure conformity to the requirements		
6.2	Lay		IS/ISO 9554:2019	R	3 coils	Each control unit	
6.2	Labelling		IS/ISO 9554:2019	R	3 coils	Each control unit	
6.2	Packaging, invoicing and delivery length		IS/ISO 9554:2019	R	3 coils	Each control unit	
7	Linear Density		IS 7071:2021	R	3 coils	Each control unit	
7	Minimum Breaking Strength		IS 7071:2021	R	3 coils	Each control unit	