



उत्पाद मैनुअल
पॉलिएस्टर(पी ई टी) स्ट्रेपिंग- विशिष्टि
आई एस 15559:2025 के अनुसार

**PRODUCT MANUAL FOR
POLYESTER(PET) STRAPPING- SPECIFICATION
ACCORDING TO IS 15559 : 2025**

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 15559:2025
	शीर्षक Title	:	Polyester Strapping- Specification
	संशोधनों की संख्या No. of amendments	:	Nil
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	The straps shall be made from polyester (polyethylene terephthalate – PET) confirming to IS 13193
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Please refer Annex - A
c)	नमूने का परिमाण Sample Quantity	:	20 meter approx.

d)	परीक्षण अनुरोध में घोषित किए जाने वाले पैरामीटर Parameters to be Declared in Test Request		Product: Grade: Dimensions (width x thickness)
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	:	a) Surface Finish (CI 4.2) b) Colour (CI 4.3) c) Freedom from Defects (CI 4.5) d) Nominal Width and nominal thickness (CI 4.6) e) Split resistance (CI 5.2) f) Camber (CI 5.3)
6.	लाइसेंस का दायरा /Scope of the Licence:		
	Licence is granted to use Standard Mark as per IS 15559:2025 with the following scope:		
	Name of the product	Polyester Strapping–Specification	
	Type	Type-I – Regular Strength Type-II – Medium Strength Type-III – High Strength	
	Dimensions (width x thickness) for each type	e.g. Type I - 9.5 x 0.51 mm, Type II – 15.6 x 1.02 mm etc. Note: In case of dimensions other than table 1, value of min. breaking strength to be declared and indicated in scope e.g. Type II - 20.00 x 1.00 mm (min breaking strength 8010 N) (also see grouping guidelines)	

BUREAU OF INDIAN STANDARDS

Manak Bhawan,

9, Bahadur Shah Zafar Marg, New Delhi – 110002

ANNEX- A

GROUPING GUIDELINES

1. IS15559:2004 classifies Polyester Strapping in following types:
 - i) Type-I – Regular Strength (Width between 9.0mm to 12.9mm)
 - ii) Type-II –Medium Strength (Width between 13.0mm to 20.0)
 - iii) Type-III – High Strength (Width between 20.0 mm to 32.0 mm)
2. For the purpose of grant of licence, and change in scope of licence, the following grouping guidelines shall apply:
 - a.) Sample(s) of each type (Type I/Type II/Type III) of the product intended to be covered in the scope of licence shall be drawn and tested
 - b.) To cover a range of nominal width and nominal thickness, samples of the highest and lowest width (and corresponding nominal thickness) as per Table 1 of IS 15559, shall be tested.

Note: In case it is intended to cover widths and/or thickness other than those given in Table 1, the above grouping shall apply. However, in such cases, the manufacturer shall declare the values of nominal width, thickness and minimum breaking strength. For such a given width value, the value of nominal thickness and the value of minimum breaking strength so declared shall not be less than the nominal thickness and minimum breaking strength value specified against the closest (lower) value of width in Table 1 of IS 15559.
3. However, scope of licence shall be restricted according to the manufacturing and testing facilities available.
4. 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/Chemicals and Identification Numbers (Where applicable)
1.	Intrinsic Viscosity(CI 4.4)	Cyclohexanone, Viscometer, Graduated flask, Filter funnel, Mechanical agitator equipped with a heating device, Analytical balance, Temperature-regulated bath, Time-measuring device, Thermometer(L.C.- 1 deg C), Phenol and Tetrachloroethane
2.	Freedom From Defects(CI 4.5)	Visual
3.	Nominal width and Nominal Thickness (CI.4.6, Table 1)	Vernier Caliper (L.C.- 0.01mm) and Micrometer (L.C. 0.001mm)
4.	Breaking Strength (CI. 4.6, Table 1), Tensile Strength and Elongation (CI. 5.1, Table 2)	Tensile Testing machine with grips, force indicator, strain indicator (extensometers or strain gauges), data recording facility and sample preparation material.
5.	Split Resistance(CI 5.2)	Sample Cutter, Steel Scale(L.C.- 1mm), Sharp pin(Dia-2.4mm and taper-4.0mm at one end), Plier
6.	Camber(CI. 5.3)	Measuring Tape, Flat Surface
7.	Joint strength(CI. 5.4)	Tensile Testing machine with grips, force indicator, strain indicator (extensometers or strain gauges), data recording facility and sample preparation material.

ANNEX- C

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 entire quantity of Polyester Strapping of the same type and same width and thickness manufactured under similar conditions in a single day from the same material.

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 schedule of the licence and Licence Number (i.e. CM/L -) shall be incorporated on each Coil/container, provided always that the product thus marked conform to all the requirements 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 each coil of strap:

- a) "For BIS certification details please visit www.bis.gov.in"
- b) *Any other requirement not specified in the Indian Standard*

4. TEST CERTIFICATE - For each consignment of BIS Certified material conforming to IS 15559:2025, there shall be a test certificate which shall contain the Standard Mark, the Control Unit number and the corresponding test results (as given in Annexure-I enclosed).

5. 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)		(3)
TEST DETAILS				LEVELS OF CONTROL		REMARKS
Clause	Requirements	Test Method		No. of Samples	Frequency	
		Clause	Reference			
4.1	Manufacture	4.1	IS 15559	Each lot of raw material as purchased shall be accompanied with the test certificate of supplier or to be tested from Any BIS recognized/empaneled lab or other accredited laboratory.		
4.2	Surface Finish	4.2	IS 15559	Firm to have adequate in-process controls to ensure compliance to this parameter of the Indian Standard and appropriate records shall be maintained for evidence of conformity		
4.3	Colour	4.3	IS 15559	One	Each Control Unit	----
4.4	Intrinsic Viscosity (only for PET material)	4.4	IS 15559	One	Each lot of raw material as purchased shall be accompanied with the test certificate of supplier or to be tested from Any BIS recognized/empaneled lab or other accredited laboratory.	
4.5	Freedom from Defects	4.5	IS 15559	One coil of each hour	Each Control Unit	----
4.6 & Table 1	a) Nominal width of strapping b) Nominal thickness of strapping	4.6	IS 13360(Part 5/Sec1)	One coil of each hour	Each Control Unit	----
4.6 & Table 1	Breaking Strength	4.6	IS 13360(Part 5/Sec1)	One	For every 10000 m*	----
5.1 & Table 2	a)Tensile strength b)Elongation	5.1	IS 13360(Part 5/Sec1)	One	Both tests For every 10000 m*	----
5.2	Split Resistance	5.2	IS 15559	Two	For every 10000 m*	----

5.3	Camber	5.3	IS 15559	One	For every 10000 m*	----
5.4	Joint Strength	4.6	IS 13360(Part 5/Sec1)	One	For every 10000 m	----

*One sample for tensile test and two for split resistance shall be drawn for each 10000m of strap or part thereof of the strap of same width and thickness.

Annexure-I
TEST CERTIFICATE FORMAT
(Para 6 of Scheme of Inspection and Testing)
To be issued by Manufacturing Units only

ABC LIMITED
(REGISTERED OFFICE ADDRESS AND WORKS ADDRESS)
CM/L-

Test Certificate for Polyester Strapping- Specification

TEST CERTIFICATE NO. _____ DATED _____

TO M/s _____ (NAME AND ADDRESS OF CONSIGNEE)

It is certified that the material described below fully conforms to IS 15559:2025. All requirements of the product, as tested in accordance with the Scheme of Inspection and Testing contained in the BIS Certification Marks Licence No. CM/L____are as indicated below against each order no. etc.

(PLEASE REFER TO IS 15559:2004 FOR DETAILS OF SPECIFICATION REQUIREMENTS)

Order No. & Date	Type- (I or II), Nominal Width	Nominal Thickness and Breaking Strength	Requirements of Polyester Strapping							
			Surface Finish	Colour	Intrinsic Viscosity	Tensile Strength	Elongation	Split Resistance	Camber	Joint strength

REMARKS SHIPPING ADVICE NO.
WAGON NOS.

FOR ABC LIMITED

(for BIS certification details www.bis.gov.in)