



उत्पाद का मार्गदर्शन
एग्रो टेक्स्टाइल्स - नायलॉन निटेड सीमलेस
तम्बाकू हार्वेस्टर के लिए दस्ताने
IS 16390:2015 के अनुसार

**PRODUCT MANUAL FOR
AGRO TEXTILES — NYLON KNITTED SEAMLESS
GLOVES FOR TOBACCO HARVESTERS AS PER IS 16390:2015**

भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम 2018 की स्कीम-I के तहत यह उत्पाद मैन्युअल प्रमाणीकरण की संचालन रीति में सुसंगतता और पारदर्शिता सुनिश्चित करने के लिए सभी क्षेत्रीय/शाखा कार्यालयों एवं लाइसेन्सधारियों द्वारा संदर्भ सामग्री के रूप में उपयोग किया जाएगा। बीआईएस लाइसेन्स/प्रमाण पत्र प्राप्त करने के इच्छुक भावी आवेदकों द्वारा भी इस दस्तावेज़ का उपयोग किया जा सकता है।

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure coherence 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 licence/certificate.

1.	उत्पाद Product	:	IS 16390:2015
	शीर्षक Title	:	AGRO TEXTILES — NYLON KNITTED SEAMLESS GLOVES FOR TOBACCO HARVESTERS
	संशोधन संख्या No. of amendments	:	Nil
2.	नमूनाकरण दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	Nylon Yarn shall conform to requirements of Cl. 4.1, Table 1 of IS 16390:2015

b)	समूहिकरणदिशानिर्देश Grouping Guidelines	:	Please refer Annex-A
c)	नमूनेकापरिमाण Sample Size	:	10 pairs
3.	परीक्षणउपकरणोकीसूची List of Test Equipment	:	Please refer Annex – B
4.	निरीक्षणवपरीक्षणस्कीम Scheme of Inspection and Testing	:	Please refer Annex – C
5.	एक दिन में संभावित परीक्षण Possible tests in a day	:	a) Dimensions and Mass b) Number of Wales and Courses c) Dimensional change due to relaxation d) pH value of aqueous extract e) Scouring loss f) Glove finger dexterity g) Dimensional change due to washing, lengthwise and widthwise
6.	लाइसेन्स का कार्यक्षेत्र /Scope of the Licence:		
	IS 16390:2015 केअनुसारमानकमुहरकाउपयोगकरनेकेलिएलाइसेन्सनिम्नलिखितकार्यक्षेत्रकेलिएप्रदानकियाजाताहै Licence is granted to use Standard Mark as per IS 16390:2015 with the following scope:		
	Name of the product	AGRO TEXTILES — NYLON KNITTED SEAMLESS GLOVES FOR TOBACCO HARVESTERS	
	Size No.	0/1/2/3/4	

ANNEX-A

GROUPING GUIDELINES

For the purpose of Grant of Licence (GoL)/Change in Scope of Licence (CSoL), the following grouping guidelines shall apply:

- i) Gloves of the largest and smallest size number intended to be covered in the scope, shall be tested to cover the intermediate size numbers in the scope of licence.
- ii) The scope of the licence shall be restricted based on the manufacturing and testing capabilities of the manufacturer.
- iii) During the operation of licence, products of each variety covered in the scope of licence, shall be tested in rotation, to the extent possible.

Annex-B
LIST OF TEST EQUIPMENT

Major test equipment essentially required to test as per requirements of Indian Standard.

S. No.	Test used in with Clause Reference	Test Equipment
1.	Freedom from defects, Cl. 4.3	Visible inspection
2.	Dimensional changes (due to relaxation), Cl. D-6 of Annex-D	Indelible ink or fast dyed cotton sewing thread, Flat table, Glass plate, Wetting agent, Absorbent material
3.	pH value of aqueous extract, Cl. 5.3, Table-4	Distilled or Deionised water of atleast Grade 3, Potassium chloride solution, Buffer solutions of pH 4,7 & 9, Stoppered glass or Polypropylene flasks, Mechanical shaker, Beakers of 150ml capacity, Chemically resistant rods, pH meter, Balance of 0.01g accuracy, Volumetric flask of Grade A quality
4.	Scouring loss, D-7 of Annex-D	Weighing balance, Drying Oven, Benzene and Methyl alcohol, Soxhlet apparatus, Cotton or Wool, Distillation apparatus
5.	Glove finger dexterity, D-8 of Annex-D	A solid, centreless ground Stainless Steel test pin 40mm long and diameter 11mm, Flat table
6.	Dimensional changes due to washing, Lengthwise and widthwise, Annex-E	Vernier Caliper
7.	Abrasion Resistance, Cl. 5.3, Table-4	Apparatus as per Cl. 5 of ISO 12947 (Part 1), Template, Magnifying device, Mounting device for stretch fabrics
8.	Water vapour permeability, Annex-F	Conditioning chamber to maintain Relative humidity of $65 \pm 2\%$ and temperature of $27 \pm 2^\circ\text{C}$, Burette, Open dish, adhesive tape, Turn table, Weighing balance of accuracy 0.001g
9.	Dimensions, Cl. 5.1, Table-2	Vernier Caliper
10.	Mass, Cl. 5.1, Table-2	Weighing balance

Note: The above is an indicative list for the purpose of guidance only.

ANNEX C

To Product Manual for

**AGRO TEXTILES — NYLON KNITTED SEAMLESS GLOVES FOR TOBACCO HARVESTERS
SCHEME OF INSPECTION AND TESTING**

1. **LABORATORY** - A laboratory shall be maintained which shall be suitably equipped (as per the requirement given in column 2 of Table 1) and staffed, where different tests given in the specification shall be carried out in accordance with the methods given in the specification.
 - 1.1 The manufacturer shall prepare and implement calibration plan for the test equipment.
2. **TEST RECORDS** – The manufacturer shall maintain test records for the tests carried out to establish conformity.
3. **LABELLING & MARKING** – The Standard Mark as given in the Schedule of the license and Licence Number (i.e., CM/L.....) shall be incorporated on the product , and the marking shall be done as per the provisions of the Indian Standard, provided always that the product thus marked conforms to all the requirement of the specification.
4. **CONTROL UNIT** – All packed gloves manufactured under similar conditions of production from the same raw material, of same size number, in a day, shall constitute a control unit.
5. **LEVELS OF CONTROL** - The tests as indicated in column 1 of Table 1 and the levels of control in column 3 of Table 1, shall be carried out on the whole production of the factory which is covered by this plan and appropriate records maintained in accordance with paragraph 2 above.
 - 5.1 All the production which conforms to the Indian Standards and covered by the licence should be marked with Standard Mark.
6. **REJECTIONS** – Disposal of non-conforming product shall be done in such a way to ensure that there is no violation of provisions of BIS Act, 2016.

TABLE 1
LEVELS OF CONTROL

TEST DETAILS				Test equipment requirement R: required (or) S: Sub-contracting permitted	LEVELS OF CONTROL		
Clause	Requirement	Test Methods			No. of samples	Frequency	Remarks
		Clause	Reference				
4.3	Freedom from defects	4.3	IS 16390	R	Manufacturer shall put in place adequate in-process controls and inspection to ensure conformity to requirements		
5.1	Dimensions & Mass	5.1	IS 16390	R	Manufacturer shall put in place adequate in-process controls and inspection to ensure conformity to requirements		
5.2	Wales & Courses	5.2, Table-3	IS 16390	R	Manufacturer shall put in place adequate in-process controls and inspection to ensure conformity to requirements		
5.3 & Table-4	Dimensional change (due to relaxation)	D-6	IS 16390	R	1	Every control unit	
	pH value of aqueous extract	5.3	IS 1390	R	1	Every control unit	
	Scouring loss	D-7	IS 16390	R	1	Every control unit	
	Glove figure dexterity	D-8	IS 16390	R	1	Every control unit	
	Dimensional change due to washing, lengthwise & widthwise	5.3	Annex-E to IS 16390	R	1	Every control unit	
	Abrasion resistance	5.3	IS 12673 (Part 2)	S	1	Once in a month	
	Water vapour permeability	5.3	Annex-F to IS 16390	S	1	Once in a month	

Note-1: Whether test equipment is required, or sub-contracting is permitted in column 2 shall be decided by the Bureau and shall be mandatory. Sub-contracting is permitted to a laboratory recognized by the Bureau or Government laboratories empanelled by the Bureau.

Note-2: The control unit and levels of control as decided by the Bureau are recommendatory and the licensee can submit his own levels of control which can be followed consequent to approval of Head BO.