



**PRODUCT MANUAL FOR
ALUMINIUM AND ALUMINIUM ALLOY BARE FOIL FOR FOOD PACKAGING
ACCORDING TO IS 15392:2003**

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.

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|----|---|---|---|
| 1. | Product | : | IS 15392:2003 |
| | Title | : | Aluminium And Aluminium Alloy Bare Foil For Food Packaging - Specification |
| | No. of Amendments | : | 0 |
| 2. | Sampling Guidelines: | | |
| a) | Raw material | : | i) The material shall conform to the chemical composition of the G 19000,19500,19600,31000 and 40800 of IS 737 ii) The material shall be supplied in fully annealed 'O' temper |
| b) | Grouping guidelines | : | Please refer ANNEX – A |
| c) | Sample Size | : | 20 metre coils -3 No. |
| 3. | List of Test Equipment | : | Please refer ANNEX – B |
| 4. | Scheme of Inspection and Testing | : | Please refer ANNEX – C |
| 5. | Possible tests in a day : Please refer ANNEX – D | | |
| 6. | Scope of the Licence : | | |
| | “Licence is granted to use Standard Mark as per IS 15392:2003 with the following scope: | | |
| | Nominal Thickness, width, Form of product –Coil/Sheet, Surface Condition - Dry annealed A/B/C or Slick annealed | | |

ANNEX A

Grouping Guidelines

1. IS 15392 covers Aluminium and Aluminium Alloy Bare Foil for Food Packaging of following varieties:-

- (i) Preferred Nominal Thickness: 11,12,14,16,18,20,22,25,28,30,35,40,45,50,60,70 & 75 μm
- (ii) Surface Condition (a) Dry Annealed & (b) Slick Annealed

2. In order to follow a uniform policy for drawl of samples for independent testing as per IS 15392: 2003 (Aluminium and Aluminium Alloy Bare Foil for Food Packaging) for the purpose of grant of licence/ inclusion of additional varieties in the existing licence, the following guidelines may be followed:-

(i) In order to cover the entire preferred nominal thickness range and both surface conditions i.e dry & slick annealed, samples of lowest and highest preferred nominal thickness has to be drawn separately for each surface condition. In case of dry annealed condition, the IO shall record the type of condition i.e. dry annealed A, dry annealed B or dry annealed C in the test request.

For example, If sample of foil 11 μm & 30 μm of any surface condition i.e dry annealed A or dry annealed B or dry annealed C is tested for all the requirements of the specification, then foil of preferred nominal thickness from 11 μm upto and including 30 μm having surface finish dry annealed shall be considered for grant of licence/inclusion.

3. During Preliminary inspection, testing for dimensional tolerances as per clause 12.2 & 12.3 of IS 15392: 2003 shall be ensured in factory testing. For the purpose of inclusion, licensee shall submit the factory rest report for these requirements along with OSL test report and conformity of the dimensions to the same shall be verified during next surveillance visit.

4. While considering grant of licence/ inclusion of new varieties, it shall be ensured that the firm has necessary manufacturing and testing facilities for all the sizes proposed to be covered under the scope of BIS Certification.

5. During the operation of licence, BOs shall ensure testing of different thickness covered in the licence in rotation, so that all thickness are tested over a period of time.

ANNEX B**List of Test Equipment***Major test equipment required to test as per the Indian Standard*

| Sl. No | Test Equipment | Tests Used in with Clause reference of IS 15392 |
|---------------|----------------------------------|--|
| 1 | Digital Vernier Caliper | Cl. 11 & 12 |
| 2 | Steel Scale (1 meter) | Cl. 12 |
| 3 | Perforation Counting Instrument | Cl.5 |
| 3 | UNIAXIAL TENSILE TESTING MACHINE | Cl. 13 |
| 5 | Air oven | Cl.9 |
| 6 | Electronic weighing Balance | Cl.11 |
| 9 | Oil Distillation Apparatus | Cl. 9 |
| 10 | Hot Plate | Cl. 9 |
| 12 | Thickness Gauge (flat anvil) | Cl.12 |
| 13 | Distilled water | Cl.14 |
| 14 | Alcohol | Cl.14 |

The above list is indicative only and may not be treated as exhaustive.

ANNEX C

Scheme of Inspection And Testing

1. **LABORATORY**– A laboratory shall be maintained which shall be suitably equipped and staffed where different tests given in the specification shall be carried out in accordance with the methods given in the specification.

2. **TEST RECORDS**- All records of tests, inspection and calibration shall be kept in suitable forms approved by the Bureau.

2.1 All testing apparatus/measuring instruments shall be periodically checked and calibrated and records of such checks/calibration shall be maintained. Tensile testing machine shall be calibrated at least once in a year.

2.2 Copies of any records and other connected papers that may be required by the Bureau shall be made available at any time on request.

3. **QUALITY CONTROL**– It is recommended that, as far as possible, Statistical Quality Control (SQC) methods may be used for controlling the quality of the product during production as envisaged in this Scheme [See IS 397(Part I):2003, to IS 397(Part4):2003].

3.1 In addition, effort should be made to gradually introduce a Quality Management System in Accordance with IS/ISO9001.

4. **STANDARD MARK**– The Standard Mark, as given in Column (1) of the First Schedule of the licence shall be suitably marked on each package of Aluminium & Aluminium Alloy Bare Foil for Food Packaging provided always that the material thus marked conforms to every requirement of IS15392.

4.1 **OTHER MARKING**- In addition on each foil package shall also be marked with the following details:

- a) Name or trade mark of the manufacturer;
- b) Size (Width & Thickness);
- c) Grade;
- d) Surface Condition;
- e) Control unit No./Lot No.
- f) Date of Manufacturing;
- g) Net Quantity
- h) Licence Number(CM/L No... ..).

5. **LEVELS OF CONTROL**- The tests, as indicated in Table 1 attached and at the levels of control specified therein, shall be carried out on the whole production of the factory which is covered by this scheme and appropriate records and charts maintained in accordance with paragraph 2.0 above. All the production which conforms to the Indian Standards and covered by the licence shall be marked with certification mark of the Bureau.

5.1 Control Unit – For the purpose of the Scheme of Testing and Inspection, all the rolls/sheets of same size and same surface condition manufactured in a shift shall constitute one control unit.

5.2 In respect of all other clauses of the specification, the factory will maintain appropriate controls and checks to ensure that their product conforms to the requirements of those clauses.

6. **REJECTIONS**– A separate record shall be maintained giving information relating to the rejection of the production not conforming to the requirements of the specification and the method of its disposal. Such material shall in no circumstances be stored together with that conforming to the specification.

7. **SAMPLES**– The licensee shall supply, free of charge, the samples required in accordance with the Bureau of Indian Standards (Certification) Regulations, 1988, as subsequently amended, from the factory or go downs. The Bureau shall pay for the samples taken by it from the open market.

8 **REPLACEMENT**– Whenever a complaint is received soon after the goods with Standard Marks have been purchased and used, and if there is adequate evidence that the goods have not been misused, defective goods or their components are replaced or repaired free of cost by the licensee in case the complaint is proved to be genuine and the warranty period (where applicable) has not expired. The final authority to judge the conformity of the product to the Indian Standard shall be with the Bureau. The firm shall have own complaint investigation system as per IS/ISO10002.

8.1 In the event of any damages caused by the goods bearing the Standard Mark, or Claim being filed by the Consumers against BIS Standard Mark and not “Conforming to” the relevant Indian Standard, entire liability arising out of such non conforming product shall be of licensee and BIS shall not in any way be responsible in such cases.

9. **STOP MARKING**–The marking of the product shall be stopped under intimation to the Bureau if, at any time, there is some difficulty in maintaining the conformity of their product to the specification, or the testing equipment goes out of order. The marking may be resumed as soon as the defects are removed under intimation to Bureau.

9.1 The marking of the product shall be stopped immediately if directed to do so by Bureau for any reason. The marking may then be resumed only after permission by the Bureau. The information regarding resumption of markings shall also be sent to the Bureau.

10. **PRODUCTION DATA**– The licensee shall send to BIS as per the enclosed proforma-1 to be authenticated by a Chartered Accountant, a statement of quantity produced, marked and exported by him and the trade value thereof at the end of each operative year of the licence.

TABLE 1

| TEST DETAILS | | | | Test equipment requirement R: required (or) S: Sub-contracting permitted | LEVELS OF CONTROL | | REMARKS |
|-------------------|----------------------|---------------|---------------|---|-------------------|-----------------------------------|---|
| Clause | Requirement | Test Method | | | No. of Samples | Frequency | |
| | | Clause | Reference | | | | |
| Raw Material | | | | | | | |
| 7 | Material | 7.1 and 7.2 | IS :737 | S | One | Each consignment of up to 4 tonne | In case a test certificate is received with each consignment of raw materials, further testing would not be necessary. |
| Finished Material | | | | | | | |
| 5 | Pinhole count | 5 | IS 15392:2003 | R | One | Every 5th roll/sheet | |
| 6 | Freedom from defects | 6 | - do- | R | One | Every 5th roll/sheet | |
| 9 | Lubricants | 9.2 and 9.3 | IS 15392:2003 | R | Five | One control unit | |
| 12 | Dimensions | 10, 11 and 12 | IS 15392:2003 | R | Five | One control unit | The lot shall be passed if samples pass. In case of failure of one or more samples, 100% inspection should be done and those conforming to the requirement be marked. |
| 13 | Tensile Properties | 13 | IS:13237 | R | 1 | One control unit | If any sample fails to comply with the requirements, two additional samples one from the same rolls/ sheets and one from other rolls/sheets shall be selected and tested. If both the samples pass the lot shall be accepted. |
| 14 | Surface Conditions | 14 | IS 15392:2003 | R | | Each roll/sheet | |

ANNEX D

Possible Tests in a day

- 1 Pinhole count
- 2 Freedom from defects
- 3 Lubricants
- 4 Dimensions
- 5 Tensile Properties
- 6 Surface Conditions