# PRODUCT MANUAL FOR METALLIC OR POLYMER COATED WELDED WIRE MESH FENCING ACCORDING TO IS 19363:2025

***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 19363:2025 |
| | **Title** | : | Metallic or Polymer Coated Welded Wire Mesh Fencing |
| | **No. of Amendments** | : | Nil |
| | | | |
| 2. | **Sampling Guidelines:** | | |
| a) | **Raw material** | : | As per clause 5 of IS 19363: 2025 |
| b) | **Grouping guidelines** | : | Please refer ANNEX – A |
| c) | **Sample Size** | : | 1.5 m x 2 (Mechanical) + 2 m (chemical). Additional samples as required for testing as per Cl. 7 may be required for complete testing of the respective variety.<br>Tests as per Cl. 8 shall be done in factory testing and no sample may be drawn for these tests as they are to be done on complete Roll/Panel. |
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| 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 :** | | All tests, except tests as per Cl. 7.2.1, if applicable |
| | | | |
| 6. | **Scope of the Licence :** | | |
| | Licence is granted to use Standard Mark as per IS 2721:2003 with the following scope: | | |
| | Name of the product | Metallic or Polymer Coated Welded Wire Mesh Fencing | |
| | Models A/ B/ C/ D (*based on method of fabrication)* | | |
| | Type based on coating | Type 1, Type 2, Type 3, Type 4 | |

## ANNEX-A

## GROUPING GUIDELINES

1. The following parameters shall be considered for grouping of "Metallic or Polymer Coated Welded Wire Mesh Fencing" as per IS 19363: 2025:

   (a) Grouping based on method of fabrication:

   i. Model A

   ii. Model B

   iii. Model C

   iv. Model D

   (b) Type based on coating

   i. Type 1
   ii. Type 2
   iii. Type 3
   iv. Type 4

   (c) Fencing Mesh Size
   (d) Panel/Roll dimensions

2. Considering the above, following guidelines will be followed for Grant of licence/Change in scope of licence:

   a) One sample of Welded Wire Mesh Fencing of any dimension, with any fencing mesh size may be tested to cover welded wire mesh fencing of all dimensions of all mesh sizes.

   b) Separate sample of welded wire mesh fencing of each model (Models A, B, C, D- *based on method of fabrication*) intended to be covered in scope, shall be tested.

   c) Separate sample of welded wire mesh fencing of each type (Type 1, 2, 3, 4- *based on coating*) intended to be covered in scope, shall be tested.

3. The Firm shall declare the Varieties they intend to cover in the Licence. The Scope of Licence may be restricted based on the Manufacturing capabilities of the Manufacturer.

4. During the operation of licence, it shall be ensured that all varieties covered in the license are tested in rotation, to the extent possible

# ANNEX B

## List of Test Equipment

***Indicative list of major test equipment required to test as per the Indian Standard***

| Sl. No. | Tests | Clause | Test Equipment |
|---|---|---|---|
| 1 | Mechanical Properties | 6 | • Universal Testing machine,<br>• Testing fixture as per Cl. 12.4 of IS 19363<br>• Vernier Caliper |
| | Tensile Strength | 6.1 | |
| | Weld Shear Strength | 6.2 | |
| 2 | Physical Properties | | |
| | Metallic Coating | 7.1 | • Weighing balance |
| | Salt Spray Exposure | 7.2.1 | • Salt Spray chamber as per ISO 9227 |
| 3 | Dimensions and Tolerances | 8.0 | • Vernier Caliper<br>• Micrometer<br>• Feeler Gauge<br>• Measuring Tape |
| 4 | Coating Weight | 12.1 | • Weighing Balance and appropriate chemicals as per Cl. 12.1 |
| 5 | Polymer coating thickness | 12.2 | Micrometer, appropriate chemical or test set up for non-destructive measurement as per ISO 2178 |
| 6 | Adhesion test | 12.3 | Knife |

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

## 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 in preparing the Quality Assurance Plan, recommended levels of control are given in **Table 1**.

1.3.2 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.

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

**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, LABELLING AND MARKING** – As per the requirement of IS 19363:2025. The Standard Mark, as given in the Schedule of the licence, shall be marked on a tag attached to each Panel/Roll of fencing, provided always that the product thus marked conforms to all the requirement of the specification.

In addition, the licence no. CM/L-_____ and details of BIS website shall be marked at an appropriate place on product or package as follows: "For details of BIS certification please visit www.bis.gov.in".

4. **REJECTION - T**he 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.

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**TABLE 1 (Recommended levels of Control- *For guidance only*)**

| (1) | | | | (3) | | |
|---|---|---|---|---|---|---|
| **Test Details** | | | | **Levels of Control** | | |
| **Cl.** | **Requirement** | **Test Method** | | **No. of Sample** | **Frequency** | **Remarks** |
| | | **Clause** | **Reference** | | | |
| 5 | Material | 5 | IS 19363<br>IS 280<br>IS 4826<br>IS 12753<br>IS 4759 | One | Each consignment | No further testing required in case material is ISI Marked or received with a test certificate. |
| 5 | Manufacture | 5 | IS 19363 | Manufacturers should exercise adequate control so that whole production shall meet the requirements. Records shall be maintained. | | |
| 8 | **Dimensions** | | | | | |
| | Mesh Dimensions | 8.3 | IS 19363 | | | |
| | Roll/panel dimensions | 8.4 | IS 19363 | | | |
| | Squareness deviation/diagonal difference | 8.5 | IS 19363 | | | |
| | Flatness | 8.6 | IS 19363 | | | |
| 9 | Workmanship | 9 | IS 19363 | | | |
| ***6*** | ***Mechanical properties*** | | | | | |
| 6.1 | Tensile strength | 6.1 | IS 19363 | One | Once in a months | |
| 6.2 | Weld Shear strength | 6.2, 12.4 | IS 19363 | One | Once in a month | |
| ***7*** | ***Physical properties*** | | | | | |
| 7.1 | Metallic coating | 7.1, 12.1 | IS 19363<br>IS 2633<br>IS 4826 | One | Once in a month | Product of all types of coating which are manufactured in the period shall be tested at least once in a month |

| | | | | | | |
|---|---|---|---|---|---|---|
| 7.2 | Polymer coating on welded mesh | 7.2, 12.2,12.3 | IS 19363 | One | Once in 3 months | Product of all types of coating which are manufactured in the period shall be tested at least once in 3 months |