



उत्पाद मैनुअल
प्लाईवुड के लिए सिंथेटिक रेज़िन आसंजक
(फेनोलिक, एमिनोप्लास्टिक और जैव-सामग्री आधारित)
आई एस 848 : 2025

PRODUCT MANUAL
SYNTHETIC RESIN ADHESIVES FOR PLYWOOD
(PHENOLIC, AMINOPLASTIC AND BIO-MATERIALS BASED)
ACCORDING TO IS 848 : 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 848:2025
	शीर्षक Title	:	Synthetic Resin Adhesives for Plywood (Phenolic, Aminoplastic and Bio-Materials Based)
	संशोधनों की संख्या No. of amendments	:	Nil
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	Firm shall declare the material of synthetic resin being used for adhesives, i.e. aminoplastic, or phenolic, or bio-materials based. 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	:	1 kg or 1 liter 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 (incase of market surveillance, effort may be made to procure therequired quantity of product sample, as far as possible since raw material sample may not be available in market)
d)	परीक्षण अनुरोध में घोषित किए जाने वाले पैरामीटर Parameters to be Declared in Test Request	-	Same as the scope of licence
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		
	Nil		
6.	लाइसेंस का दायरा /Scope of the Licence:		
	Licence is granted to use Standard Mark as per IS 848:2025 with the following scope:		
	Name of the product	Synthetic Resin Adhesives for Plywood (Phenolic, Aminoplastic and Bio-Materials Based)	
	Type	MR/ BWR/ BWP	
	Description	Liquid/ Powder/ Film	
	Material of Resin	Phenolic based / Aminoplastic based / Bio-Materials Based	

भारतीय मानक ब्यूरो
 BUREAU OF INDIAN STANDARDS
 मानक भवन, ९, बहादुर शाह ज़फ़र मार्ग
 Manak Bhawan, 9, Bahadur Shah Zafar Marg
 नई दिल्ली- ११०००२
 New Delhi – 110002

ANNEX A

Grouping Guidelines

1. Synthetic resin adhesives for plywood (Phenolic, Aminoplastic and Bio-Materials Based) covered in IS 848 : 2025 is categorized as following:

a) Type of resin adhesive based on Degree of Resistance :

- i) BWP – Boiling Water Proof
- ii) BWR – Boiling Water Resistant
- iii) MR – Moisture Resistant

b) Based on physical form (Description) of resin adhesive:

- i) Liquid resin
- ii) Powder resin
- iii) Film adhesive

c) Material of Resin :

- i) Phenolic based
- ii) Aminoplastic based
- iii) Bio-Materials Based

2. Considering the above following grouping guidelines for GoL/CSoL have been developed:

a) Sample of each type of resin adhesive and material of resin shall be tested for all requirement to cover that type of resin adhesive and material of resin in the scope of the licence.

b) Sample resin adhesive of each physical form (description) i.e Liquid/Powder/Film shall be tested separately to cover that particular physical form (description) in the scope of licence.

3. The Scope of Licence may be restricted based on the Manufacturing and Testing capabilities of the Manufacturer.

4. During the operation of the Licence, BO shall ensure that all varieties covered in the Licence may be tested in rotation, to the extent possible.

ANNEX B

List of Test Equipment

(INDICATIVE LIST, FOR GUIDANCE ONLY)

Sl. No.	Tests used in with Clause Reference	Test Equipment
1	Cyclic test (Clause 7.3)	- Hot water bath - Hot Air Oven/Drying Oven - Stop Watch - Knife - Stout table with screwed wooden batten - Thermometer - Magnifying glass - Air conditioner - Veneers as per Clause A-1 - Moisture meter - Weighing balance - Flat platen press
2	Acidity and Alkalinity (Clause 7.4)	- IS Sieve 450 - Stirrer, - pH meter - Glass sheet - Grinding mill/mortar - Weighing balance - Heat resisting glass flask - Distilled water - Hot plate - Humidity chamber - Air conditioner

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 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.

1.4 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 legibly and indelibly marked on each container of adhesives, provided always that the product so marked conforms to each requirement of the Standard.

3.1 Marking shall be done as per Clause 9 of IS 848:2025.

3.2 **Additional Marking requirements:** Each container of adhesives, shall also be marked with the following additional requirement:

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

3.3 The manufacturer shall furnish written instructions detailing the manner in which each resin or be recommended combination of resin(s), hardener(s), filler, fortifier, scavenger or extender shall used as per Clause 6 of IS 848:2025.

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 R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl	Requirement	Test Methods			No. of Sample	Frequency	Remarks
		Clause	Reference				
5	Keeping Qualities of resin adhesives	5, 7	IS 848	R	One	Once in three months for each type, description of resin and material of resin.	
7.3	Cyclic Test	7.3.1 to 7.3.4, Annex-A, Table 1	IS 848 IS 1734 (Part 1) IS 1734 (Part 5)	R	Six	Once in a week for each Type (MR/ BWR/ BWP), description (Liquid/ Powder/ Film) and material of resin (Phenolic based / Aminoplastic based / Bio-Materials Based)	
7.4	Acidity and Alkalinity (pH)	Annex-B	IS 848	R	Two		