



**PRODUCT MANUAL FOR
SYNTHETIC RESIN ADHESIVES FOR PLYWOOD
(PHENOLIC AND AMINOPLASTIC)
ACCORDING TO IS 848:2006**

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.	Product	:	IS 848 : 2006
	Title	:	SYNTHETIC RESIN ADHESIVES FOR PLYWOOD (PHENOLIC AND AMINOPLASTIC)
	No. of Amendments	:	2
2.	Sampling Guidelines:		
a)	Raw material	:	NA
b)	Grouping guidelines	:	Please refer ANNEX – A
c)	Sample Size	:	1 kg or 1 liter
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	:	NIL
6.	Scope of the Licence :		
	“Licence is granted to use Standard Mark as per IS 848 : 2006 with the following scope:		
	Name of the product	Synthetic Resin Adhesives for Plywood (Phenolic and Aminoplastic)	
	Type	MR,BWR,BWP	
	Description	Liquid/ Powder/ Film	

ANNEX A
Grouping Guidelines

1. Synthetic resin adhesives for plywood covered in IS 848 : 2006 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
2. Considering the above following grouping guidelines for GoL/CSoL have been developed:
 - a) Sample of each type of resin adhesive shall be tested for all requirement to cover that type of resin adhesive 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 variety 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

Major test equipment required to test as per the Indian Standard

Sl. No.	Tests used in with Clause Reference	Test Equipment
1	Cyclic test (Clause 7.3)	<ul style="list-style-type: none"> - 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)	<ul style="list-style-type: none"> - 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

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 (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 a calibration plan for the test equipments.

2. TEST RECORDS – The manufacturer shall maintain test records for the tests carried out to establish conformity.

3. LABELLING AND MARKING – As per the requirement of IS 848:2006.

4. 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.

4.1 All the production which conforms to the Indian Standards and covered by the licence should be marked with Standard Mark.

5. REJECTIONS – 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

(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	Quality of resin adhesive	7	IS 848	R	One	Once in three months for each type and description 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 and description	#
7.4	Acidity and Alkalinity (pH)	Annex-B	IS 848	R	Two	Once in a week for each Type and description	#

In case of failure of sample in any of the requirement, additional sample shall be tested for the requirements in which the sample has failed.

Note-1: Levels of control given in column 3 are only recommendatory in nature. The manufacturer may define the control unit/batch/lot and submit his own levels of control in column 3 with proper justification for approval by BO Head.