



**PRODUCT MANUAL FOR
POLYVINYL ACETATE DISPERSION
BASED ADHESIVES FOR WOOD
ACCORDING TO IS 4835: 1979**

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 4835 :1979
	Title	:	POLYVINYL ACETATE DISPERSION BASED ADHESIVES FOR WOOD
	No. of Amendments	:	02
2.	Sampling Guidelines:		
a)	Raw material	:	Not applicable
b)	Grouping guidelines	:	Not Applicable
c)	Sample Size	:	5 Kg
3.	List of Test Equipment	:	Please refer ANNEX – A
4.	Scheme of Inspection and Testing	:	Please refer ANNEX – B
5.	Possible tests in a day :		
	(i) Solid Content (Clause 6.1) (ii) Ash content (Clause 6.2) (iii) pH Value (Clause 6.3) (iv) Bulk Density (Clause 6.4)		
6.	Scope of the Licence :		
	“Licence is granted to use Standard Mark as per IS 4835: 1979 with the following scope:		
	Name of the product	POLYVINYL ACETATE DISPERSION BASED ADHESIVES FOR WOOD	

ANNEX A**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	Solid Content (Clause 6.1)	<ul style="list-style-type: none"> - Weighing balance - Glass dish - Watch glass - Oven - Desiccator - Stirrer for mixing - Timer
2	Ash Content (Clause 6.2)	<ul style="list-style-type: none"> - Weighing balance - Platinum/Silica Crucible - Muffle Furnace
3	pH Value (Clause 6.3)	<ul style="list-style-type: none"> - pH Meter - Distilled Water - Buffer Pallets of pH 4.0 and 7.0 - Beaker
4	Bulk Density (Clause 6.4)	<ul style="list-style-type: none"> - Pycnometer - Weighing balance - Chromic acid - Constant temperature water bath - Thermometer
5	Glue Joint Strength (Clause 6.5)	<ul style="list-style-type: none"> - Air conditioner and humidity control arrangement at 27 ± 2 °C and 65 % R_H - Clamping device - Wooden jig for locating test pieces in clamp - Pulling testing machine with suitable grips
6	Early Strength Development (Clause 6.6)	<ul style="list-style-type: none"> - Veneers of Canarium spp or Vateria indica or Shorea assamica - Humidity chamber - Vernier calliper - Cutter
7	Working Consistency (Clause 6.8)	<ul style="list-style-type: none"> - Water - Brush/Roller/Glue spreader

8	Temperature of Set (Clause 6.9)	<ul style="list-style-type: none"> - Clamping device - Wooden jig for locating test pieces in clamp - Pulled testing machine with suitable grips - Veneers of Canarium spp or Vateria indica or Shorea assamica - Oven - Air conditioner to maintain temperature at 27 ± 2 °C
9	Resistance to Sustained Load (Clause 6.10)	<ul style="list-style-type: none"> - Veneers of Canarium spp or Vateria indica or Shorea assamica - Oven - Hand cutter - Weighing balance - Moisture meter (For routine check) - Test slips as per Clause C-3.1 of IS 4835 : 1979 - Air conditioner and humidity control arrangement at 25 ± 1 °C and 65 ± 2 % RH - Clamping device - Wooden jig for locating test pieces in clamp - Jig for loading test specimen as per Fig 2 of IS 4835 : 1979 - Weights

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

ANNEX B

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 4835 : 1979.

4. CONTROL UNIT – Polyvinyl acetate dispersion based adhesive for wood manufactured in a reaction vessel at a time under similar processing operations and conditions 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 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 Method			No. of Sample	Frequency	Remarks
		Clause	Reference				
4	Keeping Qualities	4.1, 6	IS 4835	R	One	Once in three months	-
6.1	Solid Content	6.1, B-3	IS 4835	R	One	Each Control Unit	-
6.2	Ash Content	6.2, B-4	IS 4835	R	One	Each Control Unit	-
6.3	pH Value	6.3, B-5	IS 4835	R	One	Each Control Unit	-
6.4	Bulk Density	6.4, B-6	IS 4835	R	One	Each Control Unit	-
6.5	Glue Joint Strength	6.5 Appendix D , E, F	IS 4835 IS 851	R	Ten	Once in a month	-
6.6	Early Strength Development	6.6 Appendix-D, E, F	IS 4835 IS 851	R	Six	Once in a month	-
6.7	Stability	6.7	IS 4835	R	One	Once in a month	-
6.8	Working Consistency	6.8	IS 4835	R	One	Each Control Unit	-
6.9	Temperature of Set	6.9 Appendix-F	IS 4835 IS 851	R	Six	Once in a week	-
6.10	Resistance to sustained Load	Appendix-C	IS 4835	R	Ten	Once in two weeks	-

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.