



उत्पाद मैनुअल

आई एस 17427: 2021 के अनुसार

पैकेजिंग, भण्डारण और परिवहन के लिए वुडेन (टिम्बर) पैलेट के लिए

दस्तावेज़ संख्या-पी एम/आई एस 17427/1/ अक्टूबर 2021

भारतीय मानक ब्यूरो की स्कीम-1 (अनुरूपता मूल्यांकन) विनियम, 2018 के तहत यह उत्पाद मैनुअल प्रमाणीकरण के प्रचालन में रीति और पारिश्रिता की सुसंगतता सुनिश्चित करने के लिए सभी क्षेत्रीय/शाखा कार्यालयों और लाइसेंसी द्वारा संदर्भ सामग्री के रूप में उपयोग किया जाएगा। बीआईएस प्रमाणीकरण लाइसेंस/ प्रमाणपत्र प्राप्त करने के इच्छुक भावी आवेदकों द्वारा भी इस दस्तावेज़ का उपयोग किया जा सकता है।

PRODUCT MANUAL FOR WOODEN (TIMBER) PALLETS FOR PACKAGING, STORAGE AND TRANSPORTATION ACCORDING to IS 17427: 2021

Document No.-PM/IS17427/1/ October 2021

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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PRODUCT MANUAL FOR WOODEN (TIMBER) PALLETS FOR PACKAGING, STORAGE AND TRANSPORTATION ACCORDING TO IS 17427:2020

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1.	Product	:	IS 17427:2020
	Title	:	Wooden (Timber) pallets for Packaging, Storage and Transportation
	No. of Amendments	:	One
2.	Sampling Guidelines:		
a)	Raw material	:	Fasteners as per Cl. 8 of IS 17427:2020 Timber as per Cl. 6 of IS 17427:2020
b)	Grouping guidelines	:	Please refer ANNEX – A
c)	Sample Size	:	Pallet -3 Nos.
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
6.	Scope of the Licence	:	Please refer ANNEX – D

ANNEX A

Grouping Guidelines

1. IS 17427 covers Wooden (Timber) pallets for Packaging, Storage and Transportation which are classified in to different varieties based on the following:
 - a) **Load ratings:** A, B, C, D, E, F & G (In increasing order of load rating)
 - b) **Application:** Non-expendable, Expendable
 - c) **Grades** based upon the quality of timber with permissible limit, construction and workmanship: Grade 1, Grade 2
2. Further, apart from the recommended dimensions of pallets, other dimensions of pallets as per agreement between buyer and seller are also permitted.
3. Considering the above, following guidelines shall be followed for Grant of Licence/Change in Scope of Licence:
 - a) Separate sample of pallet for each application (Non-expendable, Expendable) and each grade (Grade 1, Grade 2) shall be drawn and tested. However, if sample of higher load rating is tested and found passing then pallets of lower load rating may also be covered without separate testing for lower load ratings.
 - b) Sample of any one dimension may be tested for each variety, as 3(a) above. Sample of all dimensions are not required to be tested.
4. The Firm shall declare the Varieties of various Pallets they intend to cover in the Licence. The Scope of Licence may be restricted based on the Manufacturing and Testing capabilities of the Manufacturer.
5. During the operation of license, 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*****Major test equipment required to test as per the Indian Standard***

Sl. No.	Tests used in with Clause Reference	Test Equipment
1.	Moisture content, Cl. 6.2	Equipment as per IS 11215
2.	Workmanship, Cl. 6.3	Steel tape, steel scale, Vernier caliper, Feeler gauge
3.	Stacking test, Cl. 13	Test set up as per IS 6219
4.	Bending test, Cl. 13	
5.	Bottom deck test, Cl. 13	
6.	Inclined impact plane test, Cl. 13	
7.	Inclined plane test (Leading edge impact test), Cl. 13	
8.	Inclined plane test (Block impact test), Cl. 13	
9.	Corner drop test, Cl. 13	
10.	Compression test, Cl. 13	Test set up as per Annex A of IS 17427
11.	Fork lifting test, Cl. 13	Test set up as per Annex B of IS 17427

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 17427: 2020.

4. CONTROL UNIT – Pallets of same application category, Grade, dimension, treatment technique and load rating produced in a day, using the same species of timber seasoned together at a time, 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 The guideline on levels of control on conformity of raw material is given in Table 2.

5.2 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				
6.3	Workmanship	6.3	IS 17427	R	One	Each Control Unit	Records of tests shall be kept in Form 1of SIT
8	Fasteners	8	IS 17427	R	One	Each Control Unit	Also see Table 2 below for raw material testing, records of which shall be kept in Form 2 and 3 of SIT, as applicable
9	Components and features	9	IS 17427	R	One	Each Control Unit	Records of tests shall be kept in Form 1of SIT
10	Dimensions	10	IS 17427	R	One	Each Control Unit	Records of tests shall be kept in Form 1 of SIT
12	Moisture content	12	IS 17427	R	One	Each Control Unit	In the event of the failure of this sample, the pallets in the entire control unit shall be suitably reconditioned. Such reconditioned material when tested again shall conform to the requirement of the specification for moisture content. Records of tests shall be kept in Form 1of SIT
13	Stacking test	13 8.1	IS 17427 IS 6219	S	Three	Once in six months for each load rating, grade and application manufactured	
13	Bending test	13 8.2	IS 17427 IS 6219				

13	Bottom deck test	13 8.3	IS 17427 IS 6219	S	Three	Once in six months for each load rating, grade and application manufactured
13	Inclined impact plane test	13 9.1.1	IS 17427 IS 6219			
13	Inclined plane test (Leading edge impact test)	13 9.1.2	IS 17427 IS 6219	S	Three	Once in six months for each load rating, grade and application manufactured
13	Inclined plane test (Block impact test)	13 9.1.3	IS 17427 IS 6219			
13	Corner drop test	13 9.2	IS 17427 IS 6219			
13	Compression test	13 Annex A	IS 17427			
13	Fork lifting test	13 Annex B	IS 17427			

TABLE 2
Guidelines on ensuring conformity of raw materials used for Pallets

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	No. of Sample	Frequency	Remarks
Cl.	Requirement	Test Method					
		Clause	Reference				
6.1	Limitation of Timber defects	6.1, 6.2	17427	S	One Timber of each species	Once in a year or whenever there is change in supplier or species of timber, whichever is earlier	No testing is required in case the material is accompanied with a test certificate or is ISI Marked. Records of tests shall be kept in Form 2 or 3 of SIT as applicable
7	Sustainability of timber	7	17427	-	Each lot of timber of same species		Appropriate certificate should be received and records shall be kept in Form 2 of SIT
8	Fasteners	8	IS 17427	S	One	Each consignment	No testing is required in case the material is accompanied with a test certificate or is ISI Marked. Record of tests shall be kept in Form 2 or Form 3 of SIT, as applicable

Note-1: Sub-contracting is permitted to a laboratory recognized by the Bureau or Government laboratories empanelled by the Bureau.

Note-2: 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.

Form -1 Product testing

Date of manufacture	Species of timber	Treatment given	Length	Width	Height	Moisture content	Workmanship									Components and features
							Dimensions of components	Surfacing	Skip dressing	Cross cutting	Deck board spacing	Parallelism of deviation deck boards	Fastener splits	Protruding fasteners	Dimensions of assembled pallet	

Form -2 Raw material (for outside testing)

Date of receipt	Name of the raw material and quantity received/ consignment identification		Source	Supplier TC no and date (For Timbers, mention sustainability certificate No. along with issuing authority also)	For testing done from outside laboratory			Result	Remarks
	Timber/ planks species	Fasteners			Name of lab	Sample sent on	TR No and date		

Form- 3 Raw material (in case of in-house testing)

Sl no	Date of receipt	Name of the raw material	Source	Test results of in-house testing												Remarks
				Date of testing	IS No	Clause / Tests	Results									
1.		Timber			IS 17427	Limitation of Timber defects	Cross grains	Knots	Checks	Splits and shakes	Warp	Wane	Decay	Stain	Moisture content	
2.		Fasteners			IS 17427	Kind of fastener										
						Other tests for fasteners as applicable as per respective Standard										

ANNEX D**Scope of licence**

Licence is granted to use Standard Mark as per IS 17427:2020 with the following scope:	
Name of the Product	Wooden (Timber) pallets for Packaging, Storage and Transportation
Application category	Non-expendable/ Expendable
Load rating	A/B/C/D/E/F/G
Grade	Grade1/Grade 2