

No.TJA20191108-0008

# **INSPECTION REPORT**

Sample Name: Moulded Pallet

Inspected Company: WUZHI THOYU NEW MATERIAL TECHNOLOGY CO.,LTD

Test Type: Commission

China Packaging Research & Test Center

No.2 Haichuan Avenue Huanghai Rd. TEDA Tianjin China TEL:86.22.66231623/1625 FAX:86.22.66231624 http://www.packagetest.net Email:cprtclab@packagetest.net

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#### China Packaging Research & Test Center



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### **TEST REPORT**

#### No.TJA20191108-0008

Sample Name	Moulded Pallet			
Test Type	Commission			
Applicant	WUZHI THOYU NEW MATE	ERIAL TECHNO	LOGY CO.,LTD	
Address	NO. 175, YINGBIN ROAD, W	UZHI COUNTY	Y, JIAOZUO CITY, HENAN PROVINCE	
Applicant Rep.	FRANK			
Manufacturer	WUZHI THOYU NEW MATE	ERIAL TECHNO	LOGY CO.,LTD	
Model/Type	TY-2			
Gross Weight	22.2kg	Net Weight	1	
Sample (s) Quantity	9 unit	Sample Dimensions	1200mm×1000mm×130mm	
Date of Application	2019/03/04	Date of Test	2019/03/13	
Sample Description	Molded pallet, non-reversible, four-way, 9 blocks, the appearances of samples are normal.			
Test Standard	GB/T 4995-2014:General-purpose flat pallets for through transit of goods—Performance requirements and selection of tests.;GB/T 4996-2014:General-purpose flat pallets for through transit of goods-Test methods.GB/T 17657-2013Test methods of evaluating the properties of wood-based panels and surface decorated wood-based panels.			
Test Item(s)	Bending tests, Forklifting tests, Stacking test, Corner 加可test 世界			
Note	Customer requirement: Test pa in a standard environment.	llet length direction	on, Testing in a laboratory environment, not	

Edited by:



Checked by: 12 Dig

Approved by:

Date of Issue: 2019/03/22



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#### **Check Samples before Testing**

1.Samples appearance



2.Sample description:Molded pallet, non-reversible, four-way, 9 blocks, the appearances of samples are normal.

3.Temperature and Relative Humidity of Lab: 22°C; 16% RH

No.	Test Items		Samples No.	Standard request	Measured Value	Individual Judgment	
		Ultimate load	1	/	1114kg	/	
1	Bending tests	Load deflection value	2	$\leq 2\% L_1 = 18.12 mm$	16.12mm	Pass	
	10515	Remaining deflection value	2	$\leq 0.7\% L_1 = 6.34 mm$	4.75mm	F 885	
	<b>T</b> 11/01	Ultimate load	3	/	2463kg	/	
2	Forklifting tests	Load deflection value	4	≤20mm	12mm	Pass	
	10515	Remaining deflection value	4	≤7mm	1mm		
	a. 11	Ultim <mark>ate lo</mark> ad	5	/	9500kg	/	
3	Stacking test	Load deflection value	C	$\leq 2\% L_2 = 5.40 \text{mm}$	5.24mm	Pass	
	test	Remaining deflection value	6	$\leq 0.7\%L_2 = 1.89mm$	1.78mm		
		Diagonal deformation rate		<u>≤</u> 4%	0%		
4	Corner drop test	Breakage or damage	7	No breakage or damage that limits the performance or functionality of the pallet	No breakage and damage that limits the performance and functionality of the pallet	Pass	

#### Test result



#### **Bending Tests**

Sample No.	1,2
Sample Name	Moulded Pallet
Test Standard	GB/T 4995-2014; GB/T 4996-2014
Environment	22℃; 16% RH

#### 1. Test Process

- 1.1 Place sample 1 top deck upward across length direction, on two support applicators. Distance from inside of the support applicators to outside of the pallet is 75mm. The width across two support applicators is  $L_1$ . Place load applicators on top deck.
- 1.2 Moving speed of the upper platen of compressive machine is 12.7mm/min.

1.3 Apply compressive load until breakage occurs of the pallet or until reaching deflection value of  $L_1 \times 6\%$ , record the ultimate load  $U_1$ .

- 1.4 Replacement sample 2. Repeat the testing process 1.1~1.2.
- 1.5 Gradually increase the test load to datum load  $(1.5\% U_1)$ , record the deflection value, increase the test load to full test load $(50\% U_1)$ , record the deflection value, after 24h, record the load deflection value, relaxation to datum load $(1.5\% U_1)$ , after 1h, record the deflection value.





#### 2. Test Result

Sample 1:  $U_1$ =1114kg; Sample 2: 50% $U_1$ =557kg, 1.5% $U_1$ =17kg, L<sub>1</sub>=906mm;

the result is as follows:

Test item		Test item Standard		Individual
		request (mm)	value (mm)	judgment
Bending	Load deflection value	$\leq 2\% L_1 = 18.12$	16.12	Dece
tests	Remaining deflection value	$\leq 0.7\% L_1 = 6.34$	4.75	Pass



#### **Forklifting Tests**

Sample No.	3,4
Sample Name	Moulded Pallet
Test Standard	GB/T 4995-2014; GB/T 4996-2014
Environment	23°C; 20% RH

#### **1. Test Process**

- 1.1 Place sample 3onto the supportacross length direction, the distance between the support is 570mm, and according to the demands place the pallet and load applicator.
- 1.2 Moving speed of the upper platen of compressive machine is 12.7mm/min.

1.3 Gradually increase the load, until breakage of one of the components of the sample. Record the ultimate load  $U_2$ .

- 1.4 Replacement sample 4. Repeat the testing process 1.1~1.2.
- 1.5 Gradually increase the test load to datum load  $(1.5\% U_2)$ , record the remaining deflection value, increasing load to full test load of  $(50\% U_2)$ , record the remaining deflection value, after 30 min, record the load deflection value; relax to datum load  $(1.5\% U_2)$ , after 30 min, record the remaining deflection value.





#### 2. Test Result

Sample 3:  $U_2$ =2463kg; Sample 4:50% $U_2$ =1232kg, 1.5% $U_2$ =37kg; the result is as follows:

Test item		Standard request (mm)	Maximum measured value (mm)	Individual judgment
Forklifting Load deflection value		≤20	12	Pass
tests	Remaining deflection value	≤7	1	rass



#### **Stacking Test**

Sample No.	5,6
Sample Name	Moulded Pallet
Test Standard	GB/T 4995-2014; GB/T 4996-2014
Environment	25℃; 36% RH

#### 1. Test Process

- 1.1 Place sample 5 top deck upward across length direction, on the center of the lower platen of the compressive tester. The openings width across its test direction is  $L_2$ . Place four load applicators on top deck.
- 1.2 Moving speed of the upper platen of compressive machine is 12.7mm/min.

1.3 Apply compressive load until breakage occurs of the pallet or until reaching deflection value of  $L_2 \times 6\%$ , record the ultimate load  $U_3$ .

1.4 Replacement sample 6. Repeat the testing process 1.1~1.2.

1.5Gradually increase the test load to datum load  $(1.5\% U_3)$ , record the deflection value, increase the test load to full test load( $50\% U_3$ ),record the deflection value, after 24h,record the load deflection value, relaxation to datum load( $1.5\% U_3$ ), after 1h, record the deflection value.





#### 2. Test Result

Sample 5:  $U_3 = 9500$ kg;

Sample 6: 50% $U_3$ =4750kg, 1.5% $U_3$ =142kg, L<sub>2</sub>=270mm; the result is as follows:

Test item		Standard request (mm)	Maximum measured value (mm)	Individual judgment
Stacking	Load deflection value	$\leq 2\% L_2 = 5.40$	5.24	
Test	Remaining deflection value	$\leq 0.7\%L_2 = 1.89$	1.78	Pass



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#### **Corner drop test**

Sample No.	7
Sample Name	Moulded Pallet
Test Standard	GB/T 4995-2014; GB/T 4996-2014
Environment	25℃; 36% RH

#### 1. Test Process

1.1 The measure point A, B is at the end of the sample 7 top deck diagonal, 50mm from the corner of the pallet, measure the distance (H) between A and B.

1.2 According to the requirements of standard, lifting the corner of the pallet. Drop height: 500mm. Drop times: 3 times.

1.3. After 3 times drop, measure the distance  $(H_1)$  between A and B.



#### 2. Test Result

Sample7 :the result is as follows:

Testiter		Standard	Maximum	Individual
Test item		request	measured value	judgment
	Diagonal deformation rate	<u>≤</u> 4%	0%	
Corner drop test	Breakage or damage	No breakage or damage that limits the performance or functionality of the pallet	No breakage and damage that limits the performance and functionality of the pallet	Pass