

# Certificate of shape stability

1. Ref. transp. packaging unit:	Wienerberger 1180x600 WM 188x88x63 540pcs - 2 vertical straps	
2. Ref. measuring report:	Wienerberger nv	- 20190624011
3. Company:	Wienerberger nv	
4. Performed test:	Acceleration test according to: Be RD of April 27th 2007, EUMOS 40509,	
5. Date:	31/01/2019	EN12195-1:2010

6. Description of the tested transport packaging unit

Description:

A wooden 1180x600 containing 10 layers. In total there are 540 bricks WM 188x88x63 on the pallet. 2 vertical straps (16x0,89mm PET) are used in the BP-direction.

Primary packaging: / Secondary packaging: /

Tertiary packaging: Stretch film:  Stretch hood:  Shrink hood:  Straps:

Add transport packaging: 2 vertical straps

Anti slip up the pallet:

Anti slip up on layer(s):

Stacking pattern: Interlocked


Pallet type: 1170x600 # Layers: 10

Height [mm]: 975 Weight[kg]: 940

Length - LP [mm]: 1170

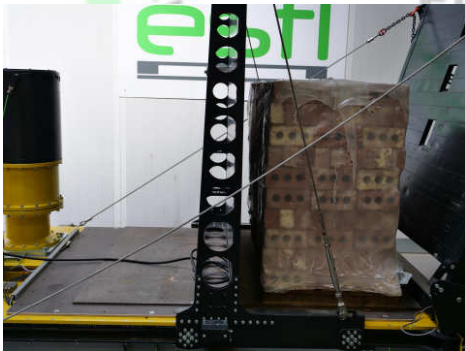
Width - BP [mm]: 600

7. Name and signature responsible of the packaging:



8. Test conditions: Relative humidity: 48% - Temperature: 20°C - Sliding of the pallet is prevented mechanically.

9. Picture in the BP-direction after the test. Picture in the LP-direction after the test.



10. Conclusions:

The tested load unit is shape stable in the BP-direction at 0.5g under the specified test conditions.  
 The tested load unit is shape stable in the LP-direction at 0.5g under the specified test conditions.



11. Name and signature responsible of the test: Ing. J. Dendauw



**TEST REPORT of the  
ACCELERATION TEST  
based on RD of April  
27th 2007,  
EN12195:2010,  
EUMOS 40509**

Ref. transp. packaging unit: Wienerberger 1180x600 WM 188x88x63 540pcs - 2 vertical straps

Ref. measuring report: Wienerberger nv - 20190624011

## **Specifications of the test**

### **Client**

Company: Wienerberger nv  
Address: Kapel Ter Bede 121  
8500 Kortrijk  
België  
Contact pers.: Danny Wallaert  
Tel. nr.: +32 (0) 56 24 96 27  
Fax nr.: -  
Mob. nr.: -  
E-mail: Danny.Wallaert@wienerberger.com

### **Test details:**

Test facility: ESTL nv, wafelstraat 45, 8540 Deerlijk, België  
Test responsible: Ing. Jelle Dendauw  
Test equipment: MJ1500 acceleration bench  
Test date: 31/01/2019  
People attending: Jelle Dendauw (ESTL), Kristof Decroos (Wienerberger), Danny Wallaert (Wienerberger)  
Temperature [°C]: 20  
Rel. humidity [%]: 48  
Load conditions: Sliding of the load unit is prevented mechanically.  
Attached documents to the report: /

### **Goal of the acceleration test**

According to the Belgian RD\* of April 27th 2007, EUMOS 40509 and the EN12195:2010, a load securing layout has to be capable of withstanding certain forces of inertia. These forces amount to 0,8g in forward direction, 0,5g in rearward direction and 0,5g in the sideward directions. The acceleration test allows for an unambiguous assessment of a certain load unit, secured in a specified manner, with the rules and regulations of the Belgian RD.

A load unit is placed on a platform and is secured in the correct orientation and according to a specified securing layout. The platform is then accelerated at 0,8g or 0,5g to imitate the influence of the forces of inertia originating from the forward deceleration as prescribed in abovementioned RD. The stability of the load unit is then assessed. If the load unit is deemed stable, it is rotated 90 degrees, together with the securing layout. Next, the platform is accelerated at 0,5g to imitate the influence of the forces of inertia originating from the sideward acceleration prescribed in abovementioned RD. After this test the stability of the load unit is assessed once again.

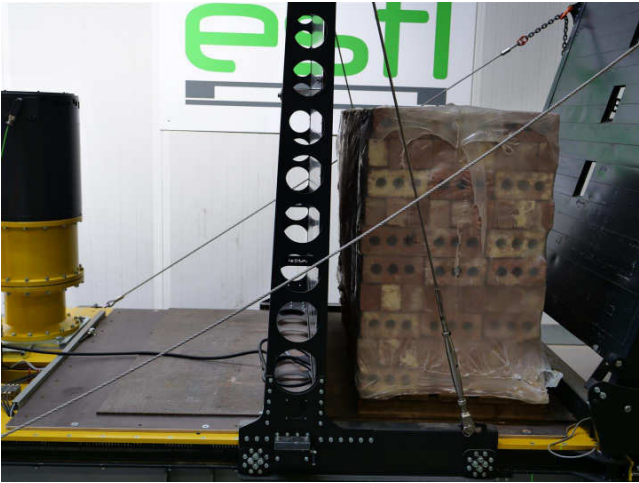
Reference 20190624/011  
Company: Wienerberger nv

Author Dendauw Jelle      Contact Danny Wallaert      Date: 31/01/2019  
Pallet name Wienerberger 1180x600 WM 188x88x63 540pcs - 2 vertical straps

## Conclusions

Acceleration: 0,5      Direction: BP      **The pallet is shape stable?**

Before	After	Result
1	1	0



Before	After	Result
-2	-3	1

Before	After	Result
-2	-2,5	0,5

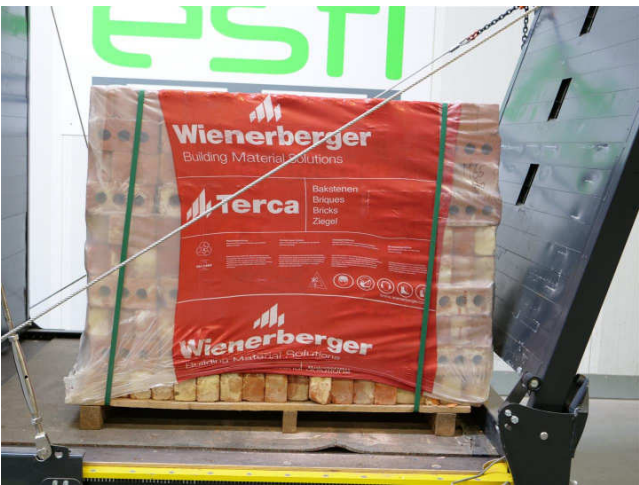
Deformation:     

The pallet is behaving shape stable at 0,5g in the BP-direction.

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Acceleration: 0,5      Direction: LP      **The pallet is shape stable?**

Before	After	Result
0,5	0,5	0



Before	After	Result
0,5	1	0,5

Before	After	Result
0	0	0

Deformation:     

The pallet is behaving shape stable at 0,5g in the LP-direction.

**Reference** 20190624/011  
**Company:** Wienerberger nv

**Author** Dendauw Jelle

**Contact** Danny Wallaert

**Date:** 31/01/2019  
**Pallet name** Wienerberger 1180x600 WM 188x88x63 540pcs - 2 vertical straps

### General remarks and conclusions

Conclusions:  
 - The pallet is behaving shape stable in the LP- and BP-direction at 0,5g following EUMOS 40509.  
 - Tilting should be avoided on truck level.

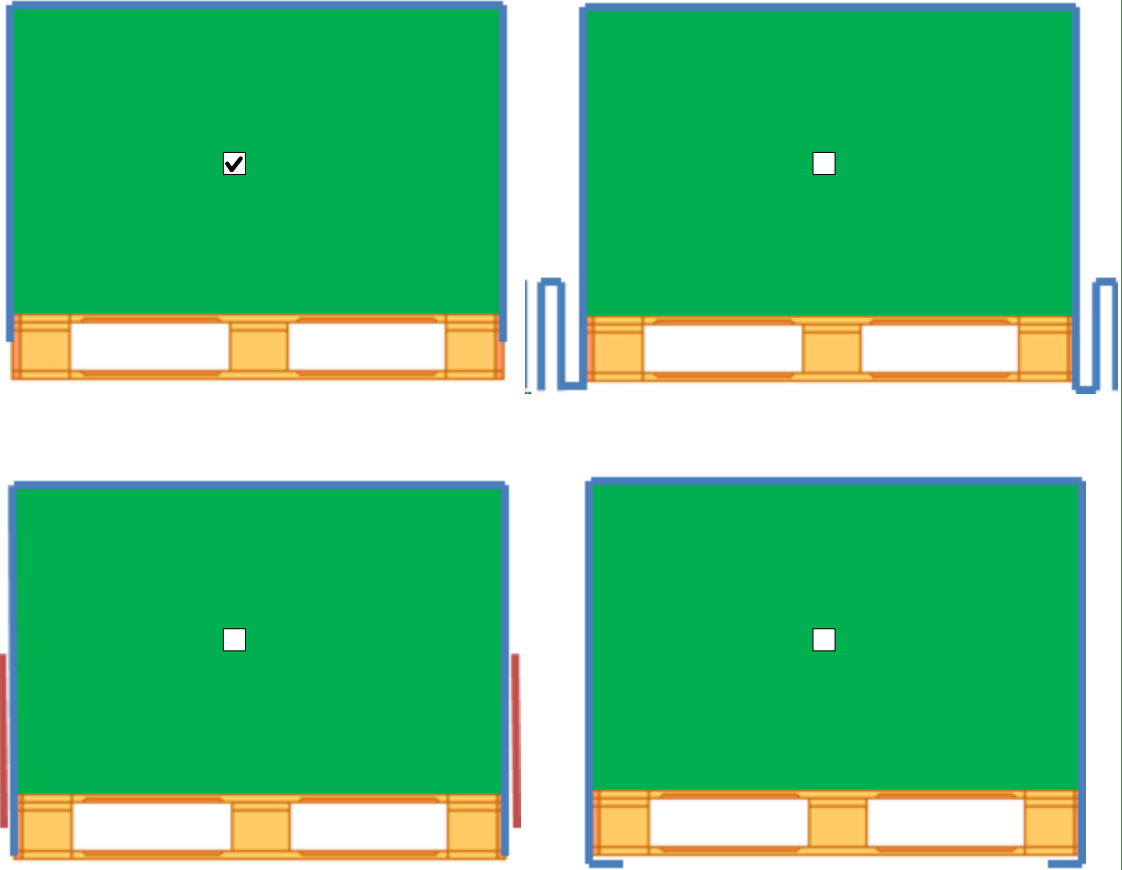
### Hood specifications

Hood reference: Techno Sales Thickness [µm]: 120

Hood Type: Shrink hood Initial dimensions [mm]x[mm]: x

Vertical stretch [%]: Hor. stretch long side [%]: Hor. stretch short side [%]:


Configuration of the hood:



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**Company:** Wienerberger nv

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**Pallet name** Wienerberger 1180x600 WM 188x88x63 540pcs - 2 vertical straps

## Pallet specifications

<b>Name of the pallet:</b> Wienerberger 1180x600 WM 188x88x63 540pcs - 2 vertical straps	
A wooden 1180x600 containing 10 layers. In total there are 540 bricks WM 188x88x63 on the pallet. 2 vertical straps (16x0,89mm PET) are used in the BP-direction.	
<b>Pallet type:</b> 1170x600	
<b>Stacking pattern:</b> Interlocked	
<b># Layers:</b> 10 <b>Cases per layer:</b>	
<b>Tie sheet between load and pallet:</b> <input type="checkbox"/>	
<b>Tie sheet on top of layer(s):</b>	
<b>LP [mm]:</b> 1170 <b>BP[mm]:</b> 600 <b>Weight [kg]:</b> 940 <b>Height [mm]:</b> 975	

**Primary packaging**

**Name.:** /

**Type:**



**Secondary packaging**

**Name:** /

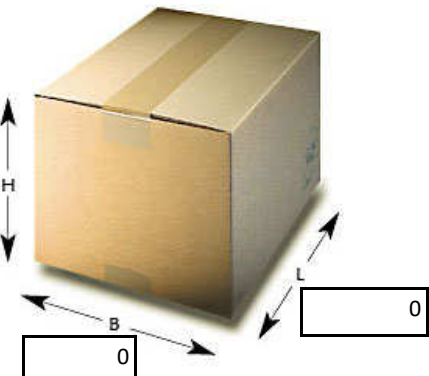
**Theor. head space [mm]:** 0

**Gross weight [kg]:** 0   

**Compression force [N]:** 0

**Fluting type:**

**Prim units per sec. unit:** 0



**Additional packaging**

2 vertical straps