

1. Ref. transp. packaging unit:	Wienerberger 1000x850 PER RETRO 238x90x40 960pcs - 2 straps
2. Ref. measuring report:	Wienerberger nv - 20200908005
3. Company:	Wienerberger nv
4. Performed test:	Acceleration test following EUMOS40509:2020
5. Test date:	1/09/2020
6. Test institute and responsible:	ESTL nv, Wafelstraat 46, 8540 Deerlijk, Belgium - Dendauw Jelle

7. Description of the tested load unit:

A wooden 1000x850 pallet containing several layers. In total there are 960 bricks PER RETRO 238x90x40 on the pallet. There are 2 vertical straps in the BP-direction.

Primary packaging: / Secondary packaging: /

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

Add transport packaging: /

Anti slip up the pallet:

Anti slip up on layer(s):

Stacking pattern: Interlocked

Pallet type: 1000x850 # Layers:

Height [mm]: 1240 Weight[kg]: 1370

Length - LP [mm]: 1000

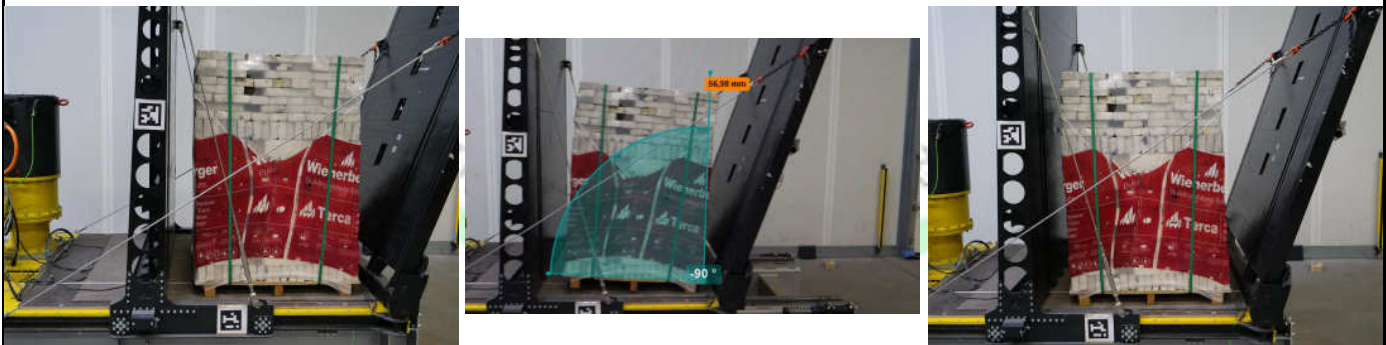
Width - BP [mm]: 850

8. Name and signature responsible of the packaging: Danny Wallaert



9. Test conditions: Relative humidity: 50% - Temperature: 20°C - Sliding of the pallet is prevented mechanically.

10a. Picture before - during - after the acceleration test in the BP-direction

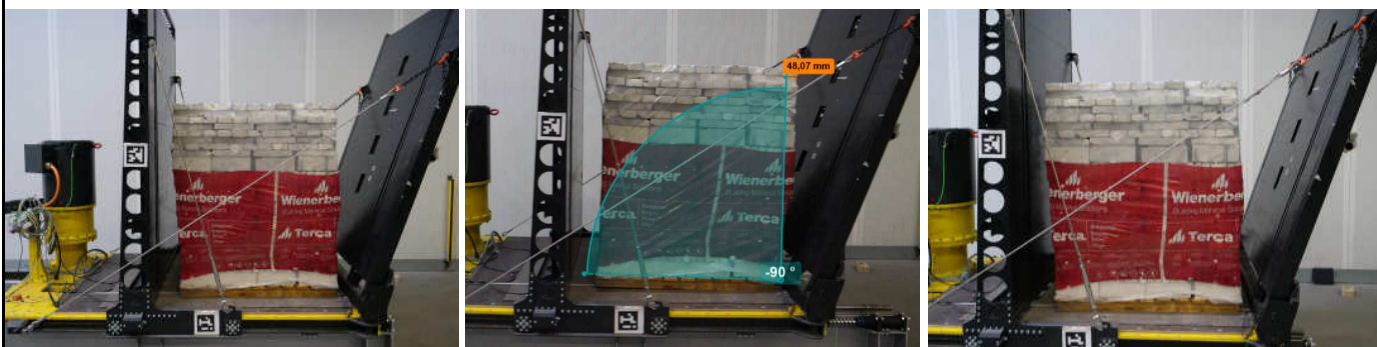


10b. Conclusion BP-direction:

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

11a.

Picture before - durig - after the acceleration test in the LP-direction



10b. Conclusion BP-direction:

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

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



Specifications of the test

Contact information 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 46, 8540 Deerlijk, Belgium

Test responsible: Dendauw Jelle

Test equipment: MJ1500 acceleration bench

Test date: 1/09/2020

People attending: Jelle Dendauw (ESTL), Danny Wallaert (Wienerberger)

Temperature [°C]: 20

Rel. humidity [%]: 65

Load conditions: Sliding of the load unit is prevented mechanically.

Attached documents to the report: /

Reference 20200908/005
Company: Wienerberger nv

Author Dendauw Jelle
LU name: Wienerberger 1000x850 PER RETRO 238x90x40 960pcs - 2 straps

Contact: Danny Wallaert

Date: 1/09/2020

Test specifications

<u>Customer:</u>	Wienerberger nv	<u>Contact:</u>	Danny Wallaert	
<u>Test facility:</u>	ESTL nv, Wafelstraat 46, 8540 Deerlijk, Belgium	<u>Date</u>	1/09/2020	
<u>Test engineer:</u>	Dendauw Jelle	<u>Temperature [°C]:</u>	20 <u>Rel. humidity [%]:</u>	50
<u>Load unit:</u>	Wienerberger 1000x850 PER RETRO 238x90x40 960pcs - 2 straps			

Conclusions and remarks

Conclusion LP-direction: The load unit behaves shape stable following EUMOS40509 at an acceleration of 0,5g.

Conclusion BP-direction: The load unit behaves shape stable following EUMOS40509 at an acceleration of 0,5g.

Remarks:

- 2 straps in the BP-direction
- The bottom of the shrink hood should be free of any tears

Pallet specifications

Name of the pallet: Wienerberger 1000x850 PER RETRO 238x90x40 960pcs - 2 straps

A wooden 1000x850 pallet containing several layers. In total there are 960 bricks PER RETRO 238x90x40 on the pallet. There are 2 vertical straps in the BP-direction.



Pallet type: 1000x850

Stacking pattern: Interlocked

Layers: Cases per layer:

Tie sheet between load and pallet:

Tie sheet on top of layer(s):

LP [mm]: 1000 BP[mm]: 850 Weight [kg]: 1370 Height [mm]: 1240

Reference 20200908/005
Company: Wienerberger nv

Author Dendauw Jelle Contact: Danny Wallaert Date: 1/09/2020
LU name: Wienerberger 1000x850 PER RETRO 238x90x40 960pcs - 2 straps

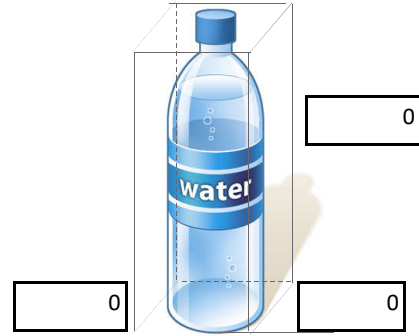
Primary packaging

Name: /

Type:

Description:

/



Secondary packaging

Name: /

Theor. head space [mm]:

0

Gross weight [kg]:

0

0

Compression force [N]:

0

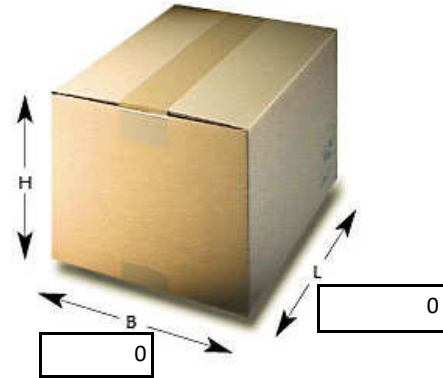
Fluting type:

Prim units per sec. unit:

0

Description:

/



Additional packaging

/

Tertiary packaging - stretch hood

Hood reference: Aldoplastics - 150µm perforated

Thickness [µm]:

150

Hood Type: Shrink hood

Initial dimensions [mm]x[mm]:

1270x 1060

Vertical stretch [%]:

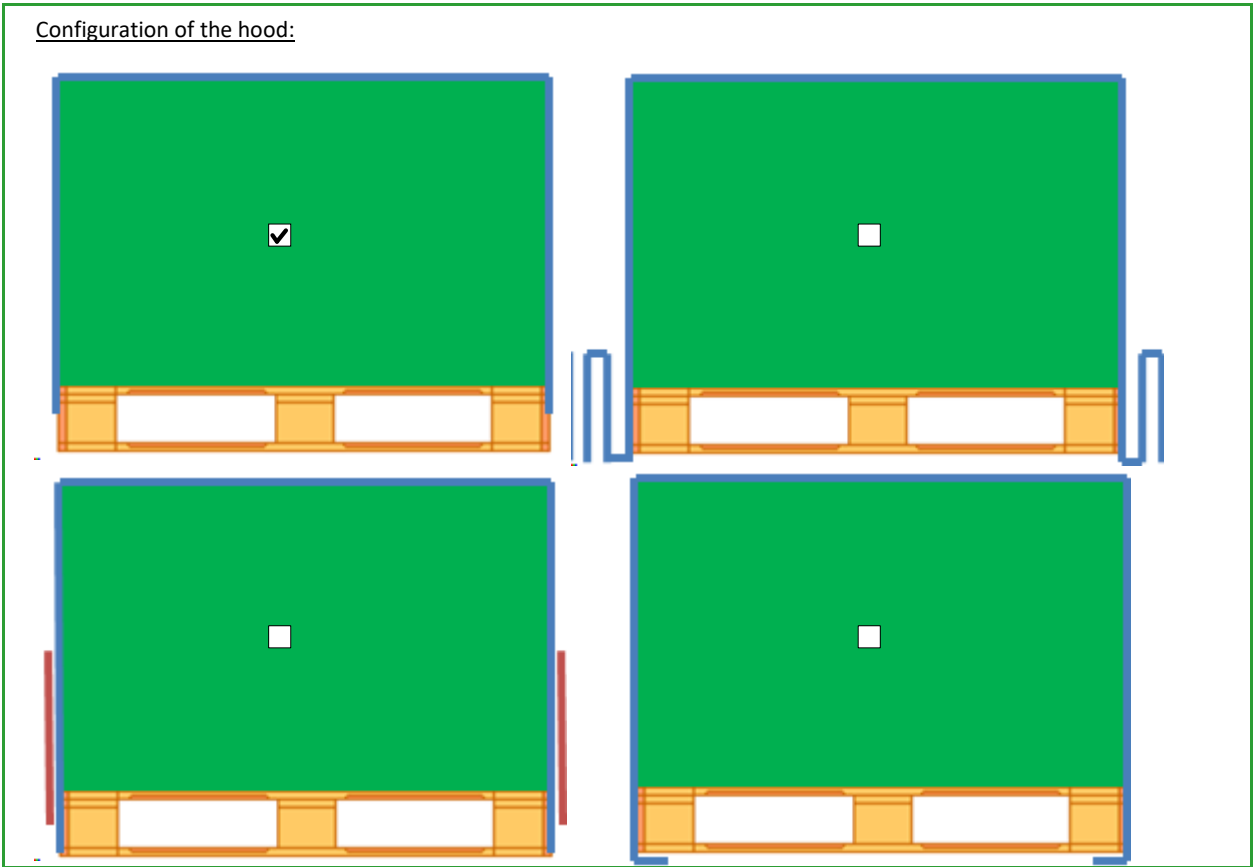
Hor. stretch long side [%]:

Hor. stretch short side [%]:

Reference 20200908/005
Company: Wienerberger nv

Author Dendauw Jelle **Contact:** Danny Wallaert **Date:** 1/09/2020
LU name: Wienerberger 1000x850 PER RETRO 238x90x40 960pcs - 2 straps

Configuration of the hood:



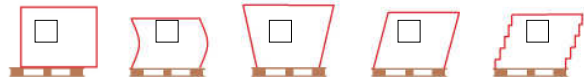
Reference 20200908/005
Company: Wienerberger nv

Author Dendauw Jelle Contact: Danny Wallaert Date: 1/09/2020
LU name: Wienerberger 1000x850 PER RETRO 238x90x40 960pcs - 2 straps

0

Individual tests

<u>Acceleration:</u> 0,5		<u>Direction:</u> BP	EUMOS40509 compliant? <input checked="" type="checkbox"/>
<p>BEFORE THE TEST</p> 		<p>DURING THE TEST (max deformation)</p> 	
<p>AFTER THE TEST</p> 		<p>DEFORMATIONS</p> 	
<p><u>Testing history sample:</u> Ambient conditions.</p>			
<p><u>Comment:</u> The pallet is behaving shape stable at 0,5g in the BP-direction. Dynamic deflection start: 23mm</p>			



Reference 20200908/005
Company: Wienerberger nv

Author Dendauw Jelle
LU name: Wienerberger 1000x850 PER RETRO 238x90x40 960pcs - 2 straps

Contact: Danny Wallaert

Date: 1/09/2020

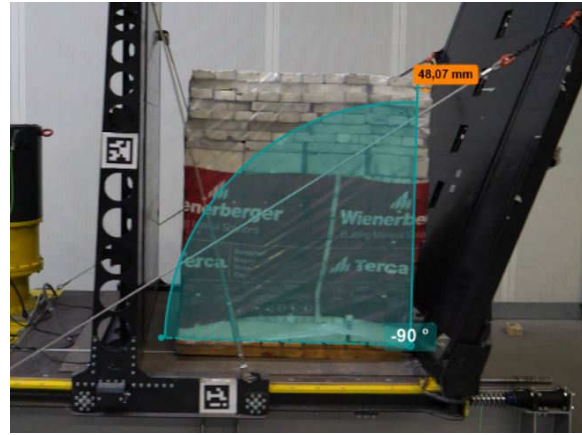
Acceleration: 0,5 Direction: LP

EUMOS40509 compliant?

BEFORE THE TEST



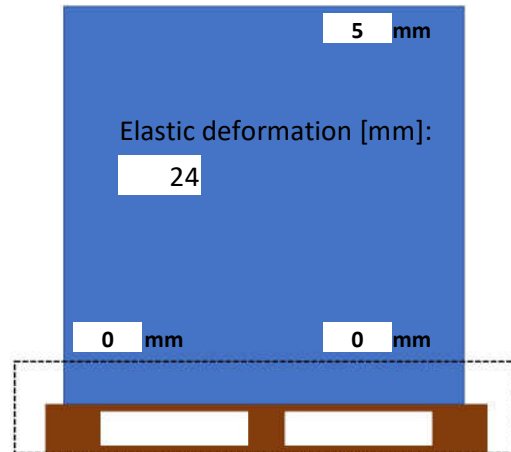
DURING THE TEST (max deformation)



AFTER THE TEST

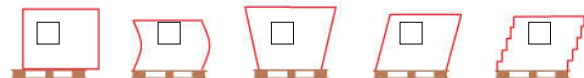


DEFORMATIONS



Testing history sample:

Ambient condition.
Used for the BP-direction.



Comment:

The pallet is behaving shape stable at 0,5g in the LP-direction.
Start dynamic deflection: 23mm.