



NATIONAL TEST REPORT
(NEN-EN 1991-1-1)

EASY GLASS[®] 3KN

TOP MONTAGE

MOD.6908

Datum
24-08-2015

Contact
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Onderwerp:
Verklaring NEN 6702 vs EN 1991-1-1

VERKLARING

Hierbij verklaart testlaboratorium voor bouwmaterialen TÜV Rheinland Nederland (voorheen ook wel bekend onder de naam TNO Quality of TNO Quality Services) dat testen, volgens eisen, uitgevoerd aan producten van het bedrijf Q-Railing en door ons gerapporteerd, conform de in de tijd van testen geldende

*Nederlandse norm NEN 6702,
Technische grondslagen voor bouwconstructies - TGB 1990 - Belastingen en vervormingen*

identiek zijn aan de eisen en testmethoden zoals die nu gelden, namelijk de

*Europese norm EN 1991-1-1, Eurocode 1:
Belastingen op constructies – Deel 1-1: Algemene belastingen – Volumieke gewichten, eigen gewicht en opgelegde belastingen voor gebouwen, inclusief Nationale Bijlage.*

Apeldoorn, 24 augustus 2015



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Test report

Report relating line load and impact load according to the Dutch norm NEN 6702, regarding the product with trade mark: Q-railing, type: 3 kN (top mount), manufacturer: Q-railing Europe GmbH & Co.KG

Report number	10081R-10.29088-v2
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Client	Q-railing Europe GmbH & Co.KG Marie-Curie Strasse 8 D - 46446 Emmerich Germany
Project number	E10.29088
Project name	Q-railing NEN 6702, 3 kN (top mount)
Number of pages	9

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1 Introduction

1.1 Purpose

The tests have been performed in order to establish whether or not the construction meets the requirements from paragraph 8.2.6.1, Lijnlast (line load) and paragraph 9.6.1, Stootbelasting (impact load) from the Dutch standard NEN 6702 [1, 2, 3] in the field of falling through safety.

1.2 Description of the samples

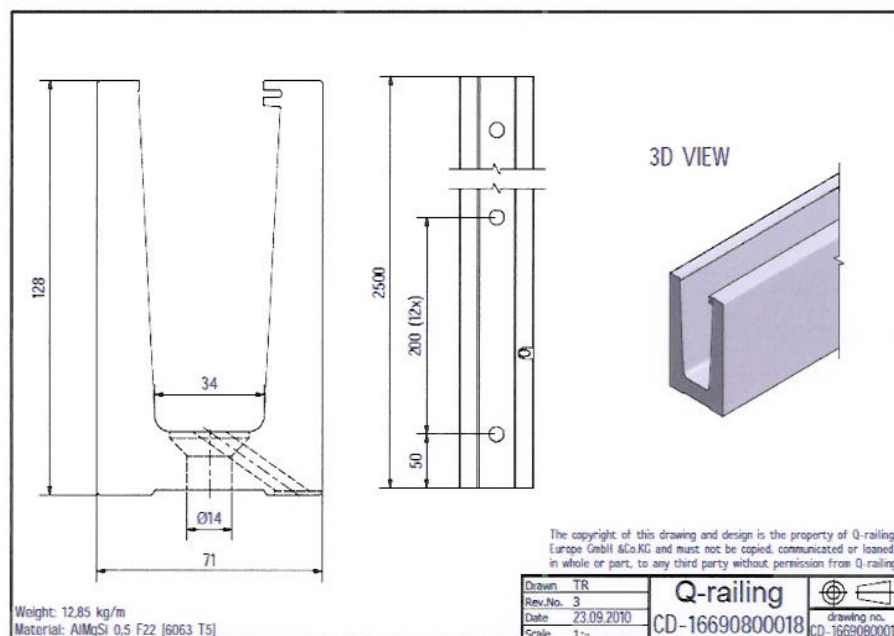
General

Manufacturer of the construction	Q-railing Europe GmbH & Co.KG
Trade mark rail or clamp	Q-railing
Type rail or clamp	3 kN (top mount) 16.6908.000.18
Kind of glass	Laminated, toughened
Configuration of the glass	10 mm – 0.76 mm PVB – 10 mm 12 mm – 0.76 mm PVB – 12 mm 15 mm – 0.76 mm PVB – 15 mm
Anchors	RG MI M12

Dimension WxH panel 1	1000 x 1200 mm
Dimension WxH panel 2	2500 x 1200 mm

The construction was test worthy. Test location: Q-lab of Q-railing, Marie-Curie Strasse 8, D - 46446 Emmerich.

Drawing



1.3 Sampling procedure

The construction was composed and mounted by the manufacturer. The test house did not have any influence on the selection of the materials and composing of the construction.

1.4 Application

The request for testing was submitted by the manufacturer, Assignment Form number: 10.A287.

1.5 Method of testing

All applicable tests have been performed according to the Dutch norm NEN 6702 [1, 2, 3].

1.6 Put out to contract

No tests were performed at third parties.

1.7 Privacy statement

Due to privacy reasons, the names of involved personnel that executed the tests, are not disclosed in the report. However, this information is available on internal work sheets, test forms etc. in the project file.

1.8 Responsibility of the tests

The tests were performed by and under responsibility of the manufacturer of the construction. Personnel of TÜV Rheinland Nederland B.V. was present for witnessing and checking for the properly performance of the tests according to the Dutch norm NEN 6702 [1, 2, 3] and for providing the soft impact body (leather bag filled with glass pearls, total mass 50 kg).

2 Test results

Test results Test results after performing the tests according to paragraph 8.2.6.1, Lijnlast (line load) and paragraph 9.6.1, Stootbelasting (impact load) from the Dutch norm NEN 6702 [1, 2, 3]:

8.2.6.1, Line load

Req. nr.	Description of the requirement		Pass/ Fail/ n.a.	
NEN 6702 8.2.6.1	If a floor separation is dictated at a location with a height difference with the connecting floor, at least a line load (q rep) and a concentrated load (point load) (F rep, is normally not tested but calculated) according to table 9 must been kept, at least during the time as indicated in table 9			
	Areas	q rep		
		RequiredTest		
Table 9	Non-public areas with a residential function	0,3 kN/m 1 min	3 kN/m 5 min	pass
	Public areas with a residential function	0,5 kN/m 1 min	3 kN/m 5 min	pass
	Non-public areas of a prison function, not situated in a prison building, of a lodging function and of a residential function; lofts of above-mentioned areas not accessible with stairs or with a free height < 2,2m	0,5 kN/m 1 min	3 kN/m 5 min	pass
	Other usage functions for transport of persons, gathering functions, sport functions and the usage function “construction, not being a building” with a part also meant for visitors. Locations where seats are fixed on the floor.	3 kN/m 5 min	3 kN/m 5 min	pass
	Other areas	0,8 kN/m 5 min	3 kN/m 5 min	pass

9.6.1, Impact load

Test	Location where the impact body hits the construction	Drop height in meters	Height where the soft body hits the construction above the ground in mm	Dimensions of the construction W x H In mm
1	In the middle	1,40 m	1200 mm	1000 x 1200 mm
2	At the right side	1,40 m	1200 mm	2500 x 1200 mm
3	At the left side	1,40 m	1200 mm	1000 x 1200 mm
4	In the middle	1,40 m	1200 mm	2500 x 1200 mm
5	At the right side	1,40 m	1200 mm	1000 x 1200 mm
6	At the left side	1,40 m	1200 mm	2500 x 1200 mm

Each requirement as mentioned beneath is a shortened description only, for the complete text is referred to the official text in the norm, in the Dutch language.

Req. nr.	Description of the requirement	Measured/judged	Pass/Fail/n.a.
NEN 6702 § 9.6.1	The construction is capable to withstand the impact load if during the test the impact body is not going through the construction.	Is not going through the construction	pass
NEN 6702 § 9.6.1	and after performing the test the mutual coherency of the separation construction is kept in one piece	Coherency kept	pass

3 Conclusion

The construction, trade mark: Q-railing, type: 3 kN (top mount), in the configuration, with dimensions and fixated with anchors as mentioned in paragraph 1.2 of this report, fulfils the requirements from paragraph 8.2.6.1, Lijnlast (line load) and paragraph 9.6.1, Stootbelasting (impact load) from the Dutch norm NEN 6702 [1, 2, 3] for the usage functions as described in the table in chapter 2 on page 5 of this report.

The test results exclusively relate to the tested constructions.


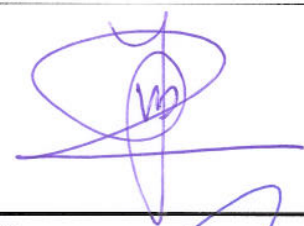
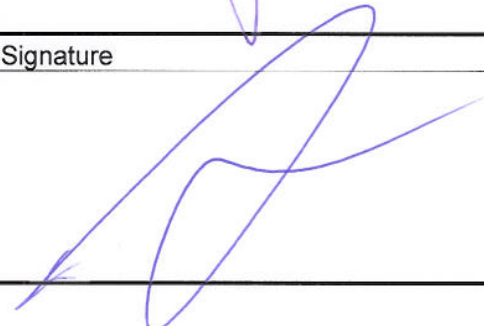
Remark:

Configurations with more layers of PVB and/or with glass dimensions within the tested ones, automatically fulfill the requirements also.

4 References

1. Dutch norm NEN 6702:2007,
Technical principles for building constructions – TGB 1990 – Loadings and deformations,
Netherlands Normalisation institute NEN, August 2007.
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Technical principles for building constructions – TGB 1990 – Loadings and deformations, Correction
page C1,
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Technical principles for building constructions – TGB 1990 – Loadings and deformations, Changing
page A1,
Netherlands Normalisation institute NEN, August 2008.

5 Signatures

Author Mr. T.R. Cruijff	Signature 
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Specialist	
Approved by Mr. A.J. Piers, B.Sc.	Signature 
Manager Industrial Services	

(This is the end of this report).

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SUCCES MET
DE INSTALLATIE!