

Test report

Test report relating to a glass product according to European standard EN 12600, Pendulum impact test for float glass, concerning the product marked as trade mark: Honghui and type: 44.2, manufacturer: WuNing HongHui New Material Co.,LTD

Report number	89207844-02
Date	23rd July 2015
Author(s)	Mr. R. Brandhorst
Client	WuNing HongHui New Material Co.,LTD Wuning Industrial Park, Jiujiang, Jiangxi Province, P. R. China
Project number	89207844
Project name	14.A288-EN12600
Number of pages	9



All rights reserved.

No part of this report may be reproduced, provided to and/or examined by third parties, and/or published by print, photoprint, microfilm, in electronic form or any other means without the explicit previous written consent of TÜV Rheinland Nederland B.V.

In case this report was drafted within the context of an assignment to TÜV Rheinland Nederland B.V., the rights and obligations of contracting parties are subject to the General Terms & Conditions for Advisory, Research and Certification assignments to TÜV Rheinland Nederland B.V and/or the relevant agreement concluded between the contracting parties.

© 2011 TÜV Rheinland Nederland B.V.

Headoffice:

Boogschutterstraat 11A
P.O. Box 541
7300 AM Apeldoorn
Tel. +31 (0)88 888 7 888
Fax +31 (0)88 888 7 879

Locations:

Vissenstraat 6
P.O. Box 541
7324 AL Apeldoorn
Tel. +31 (0)88 888 7 888
Fax +31 (0)88 888 7 879

Eiberkamp 10
P.O. Box 37
9350 AA Leek
Tel. +31 (0)88 888 7 888
Fax:+31 (0)594 504 804

Josink Esweg 10
P.O. Box 337
7500 AH Enschede
Tel. +31 (0)88 888 7 888
Fax +31 (0)88 888 7 859

TÜV Rheinland Nederland B.V. is a registered company at the Dutch Chamber of Commerce under number 27288788
info@nl.tuv.com
www.tuv.com/nl

Contents

1 Introduction	3
1.1 Purpose	3
1.2 Description of the samples	3
1.3 Sampling procedure	4
1.4 Application	4
1.5 Method of testing	4
1.6 Put out to contract	4
1.7 Privacy statement	4
1.8 Notifications, accreditations, designations	4
1.9 Calibration of the test rig	4
2 Test results	5
3 Conclusion	7
4 References	8
5 Signatures	9

1 Introduction

1.1 Purpose

The tests have been performed in order to establish whether or not the product meets the requirements of the European standard EN 12150-1 [1].

This report is based on reporting of CTC [2].

1.2 Description of the samples

General

Name of the manufacturer	WuNing HongHui New Material Co.,LTD
Address of the manufacturer	Wuning Industrial Park, Jiujiang, Jiangxi Province, P. R. China
Production plant of the samples	Wuning Industrial Park, Jiujiang, Jiangxi Province, P. R. China
Line ID where the samples are made	TDS-52B Sheet Extrusion Line
Production date	10 March 2015
Sampling date	10 March 2015
The product was marked as	Honghui
Dimensions of the samples	876 x 1938 mm

Specific

Nominal thicknesses	44.2 (2=2x0.38 mm) = 8.76mm
Configuration	4mm Clear float / 0.76mm Honghui Clear / 4mm Clear float
Intermediate layer: type, thickness	PVB
Applied films	n.a.

1.3 Sampling procedure

The samples have been submitted by the manufacturer. The test house has had no influence on the selection of the samples.

1.4 Application

The request for testing was submitted by the manufacturer on 13-04-2015. Assignment Form number: 14.A288.

1.5 Method of testing

All applicable tests have been performed according to the European standards EN 12600 [1].

1.6 Put out to contract

The applicable tests were, under responsibility of Notified Body 1750, performed by China Building Material Test & Certification Group Co., Ltd. (CTC), No. 1, Guanzhuang Dongli, Chaoyang District, 100024 BEIJING, P.R. CHINA. The lab is accredited as ISO 17025 lab by CNAS (China National Accreditation Service for Conformity Assessment), registration number L 0690.

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 Notifications, accreditations, designations

TÜV Rheinland Nederland B.V. has been notified by the Dutch Ministry of Infrastructure and the Environment as Notified Laboratory (number 1750) and Notified (Factory Production Control) Certification Body (number 0336) for the European Construction Products Regulation 305/2011 (EU).

TÜV Rheinland Nederland B.V. has been accredited by the Dutch Accreditation Council (RvA) as ISO 17025 Test Laboratory (nr. L 484) and ISO 17065 Certification Body (nr. C078).

TÜV Rheinland Nederland B.V. has been designated as Technical Service (Laboratory) by the Approval Authorities for Germany (KBA – E1) and the Netherlands (RDW – E4) for automotive safety glass (ECE R43, 92/22/EC, 2009/144/EC).

TÜV Rheinland Nederland B.V. has been recognised by the German Institute for building technics (DIBt) under number NL005 as test, control and certification body.

1.9 Calibration of the test rig

Date of the last calibration of the test rig according to annex B of EN 12600 [1]: 14 July 2014.

2 Test results

Test results after performing all applicable tests according to European standard EN 12600 [1].

Type: 8.78mm:

Class	Drop height (mm)	Result test 1	Result test 2	Result test 3	Result test 4
3	190	No breakage	No breakage	No breakage	No breakage
2	450	Breakage<4a	Breakage<4a	No breakage	Breakage<4a
1	1200	Breakage	Breakage<4a	Breakage<4a	Breakage<4a

Average thickness of the 4 measurements	8.50mm
Performance classification	1(B)1

Explanation

EN 12600 § 6 Classification

6.1 General

Glazing conforming to this European Standard is classified as follows:

- its performance under the impact test;
- the drop height at which breakage occurred;
- the drop height at which the product passed in accordance with a) of clause 4;
- the drop height at which the product passed in accordance with b) of clause 4;
- the mode of breakage of the material if it remains unbroken after the impact test.

6.2 Drop height class

Glazing shall be classified as follows:

- Class 3: material that conforms to the requirements of clause 4 when tested by the method given in clause 5 at a drop height of 190 mm;
- Class 2: material that conforms to the requirements of clause 4 when tested by the method given in clause 5 at drop heights of 190 mm and 450 mm;
- Class 1: material that conforms to the requirements of clause 4 when tested by the method given in clause 5 at drop heights of 190 mm, 450 mm and 1 200 mm.

6.3 Mode of breakage

If all test pieces remain unbroken at the drop height appropriate to its intended drop height class, the mode of breakage shall be determined as per Annex C. The mode of breakage shall be described as follows:

- Type A: numerous cracks appear forming separate fragments with sharp edges, some of which are large (typical of annealed glass);
- Type B: numerous cracks appear, but the fragments hold together and do not separate (typical of laminated glass);
- Type C: disintegration occurs, leading to a large number of small particles that are relatively harmless (typical of toughened glass).

Performance classification

The performance classification of a glass product shall be given as follows:

α (β) φ

where

- α is the highest drop height class at which the product either did not break or broke in accordance with a) or b) of clause 4;
- β is the mode of breakage;
- φ is the highest drop height class at which the product either did not break or when broke, broke in accordance with a) of clause 4.

When a glass product breaks at a drop height of 190 mm and the breakage is not in accordance with a) of clause 4 then the value of φ quoted shall be zero.

3 Conclusion

The glass product, marked as: Trade mark: Honghui and type: 44.2, manufacturer: WuNing HongHui New Material Co.,LTD, meets the applicable requirements as stated in the European standard EN 12600 [1].

The test results exclusively relate to the tested objects.

Remark 1

When and if changes are made in production method and/or equipment, assessment according to this standard shall be reconsidered and re-tests shall be performed when the changes can lead to different specifications of the glass. The decision and responsibility lies at the manufacturer.

Remark 2

If no reference of the product description was supplied by the manufacturer, than that document shall be added to this test report by the manufacturer. It was to the manufacturer's responsibility that the samples delivered for Initial Type Test are representative to the production and deviations from perfection were included in the delivered test samples.

4 References

- 1 European standard EN 12600:2002 (E),
Glass in building – Pendulum test – Impact test method and classification for float glass,
European Committee for Standardization, November 2002.
- 2 Test report WTCE000325, July 16th, 2015
Test report relating to a glass product according to European standard EN 12600, Pendulum test for
flat glass, concerning the product marked as: KIBING, manufactured by: WuNing HongHui New
Material Co.,LTD
China Building Material Test & Certification Group Co., Ltd.(CTC)
China National Safety Glass & Quartz Glass Test Center (SQGTC)
Address: No.1, Guanzhuang Dongli, Chaoyang District, Beijing 100024, P. R. China

5 Signatures

Author Mr. R. Brandhorst Specialist	Signature 
Peer review Mr. M.A.A.M. Schets, B.Sc. Specialist	Signature 
Approved by p/o Mr. T. R. Cruijff Business field manager	Signature 

(This is the end of this report).