

Test report

Test report relating to a glass product according to European standard EN 410:2011, luminous and solar characteristics, concerning the product marked as: Low iron solar textured glass thickness 2.1, 2.5, 2.8 and 3.2mm, manufactured by: Borosil Renewables Limited

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1 Introduction

1.1 Purpose

The tests have been performed in order to determine the luminous and solar characteristics of glazing in buildings, according to the European standard EN 410 [1].

A revision of this report was made, due to change the name of the company in the report.

1.2 Description of the test specimen

General

Name of the manufacturer	Borosil Renewables Limited
Address of the manufacturer	13 Alexander Road, Birmingham B27 6ER, UK
Production plant of the samples	13 Alexander Road, Birmingham B27 6ER, UK
Line ID where the samples are made	-
Production date	-
Sampling date	-
The product was marked as	Low iron solar textured glass thickness 2.1, 2.5, 2.8 and 3.2mm
Dimensions of the samples	50 x 50 mm

Specific

Number of panes in the glazing	1
Thickness of the panes	2.1-2.5-2.8-3.2 mm nominal
Type and position of panes	not applicable
Position of the coating	not applicable
Type of the coating	not applicable
Intermediate layer(s)	not applicable
Application of adhesive foils	not applicable

1.3 Sampling procedure

TÜV Rheinland B.V., acting as Notified Test Laboratory, has had no influence on the selection of the sample. All test specimen within the sample were test-worthy and were received on 29-06-2021.

1.4 Application

The request for testing was submitted by the manufacturer on 20th April 2021, order or reference number or name: xxx. Assignment Form number: 21.A132.

1.5 Method of testing

All applicable tests have been performed according to the European standard EN 410 [1].

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 Notifications, accreditations, designations

TÜV Rheinland Nederland B.V. has been notified by the Dutch Minister for Housing and the Central Government Sector as Notified Laboratory 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).

Remark

The reported tests were performed under ISO 17025 accreditation..

2 Test results

Test results after performing all applicable tests according to European standard EN 410 [1].

Characteristics	Symbol	2.1	2.5	2.8	3.2
		Light transmittance	$\tau_{v D65}$	0.91	0.91
Light reflectance, side 1 (coated, if applicable)	$\rho_{v D65}$	0.08	0.08	0.08	0.08
Light reflectance, side 2 (uncoated, if applicable)	$\rho'_{v D65}$	0.08	0.08	0.08	0.09
Solar direct transmittance	τ_e	0.91	0.90	0.91	0.90
Solar direct reflectance, side 1 (coated, if applicable)	ρ_e	0.08	0.08	0.08	0.08
Solar direct reflectance, side 2 (uncoated, if applicable)	ρ'_e	0.08	0.08	0.08	0.08
Total solar energy transmittance (solar factor)	g	0.91	0.91	0.91	0.90
UV- transmittance	τ_{uv}	0.86	0.84	0.85	0.83
General colour rendering index	Ra_{D65T}	99.88	99.86	99.86	99.85
General colour rendering index	Ra_{D65} R outside	99.52	99.49	99.32	99.41
General colour rendering index	Ra_{D65} R inside	99.50	99.49	99.36	99.39

Used instrument:

Manufacturer and type of spectrophotometer	Perkin Elmer, Lambda 1050 UV Vis NIR
Reflectance accessory or Integrating sphere (if used)	PE standard; sphere 150 mm (PELA 1039)
Reference material for reflectance	Second Surface Mirror 99000155

Period of measurement

The measurements took place in the period August 2021.



3 Conclusion

This report is just a presentation of the test results. Because the standard does not contain requirements, there cannot be a comparison between requirements and test results and therefore a conclusion cannot be made.

4 References

- 1 European standard EN 410:2011 (E),
Glass in building – Determination of luminous and solar characteristics of glazing,
European Committee for Standardization, February 2011.

5 Signatures

Author	Authorized by
X 	X 
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(This is the end of this report).