



2223

# WINTTECH

Test Report/Certificate No: R1323/06/1091/Rev 1

Date of Testing: 22<sup>nd</sup> August 2006

## 3M United Kingdom Plc, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT

**Ultra S400 (formerly known as SCLARL400) 100 micron Film (on 4mm Float Glass), has achieved Class 2B2 of BSEN 12600 'Glass in Building – Pendulum Test – Impact Test Method and Classification for Flat Glass'.**

SAMPLE REFERENCE No.	IMPACTED SIDE OF SAMPLE	ALLOWABLE BREAKAGE MODE	PERFORMANCE CLASSIFICATION	DIMENSIONS OF TEST PIECES	RESULT
1	Film	B	---	876 x 1937	Pass (did not break)
2	Film	B	---	876 x 1937	Pass (did not break)
3	Film	B	---	876 x 1937	Pass (did not break)
5	Film	B	---	876 x 1937	Pass (did not break)
6	Glass	B	---	876 x 1937	Pass (did not break)
7	Glass	B	---	876 x 1937	Pass (did not break)
8	Glass	B	---	876 x 1937	Pass (broke in accordance with Clause 4)
9	Glass	B	3	876 x 1937	Pass (did not break)
1	Film	B	---	876 x 1937	Pass (did not break)
2	Film	B	---	876 x 1937	Pass (broke in accordance with Clause 4)
3	Film	B	---	876 x 1937	Pass (did not break)
5	Film	B	---	876 x 1937	Pass (did not break)
6	Glass	B	---	876 x 1937	Pass (broke in accordance with Clause 4)
7	Glass	B	---	876 x 1937	Pass (did not break)
9	Glass	B	---	876 x 1937	Pass (broke in accordance with Clause 4)
10	Glass	B	2	876 x 1937	Pass (broke in accordance with Clause 4)

These results are valid only for the conditions under which the tests were conducted.

Product Definition: Asymmetrical Product.

All Test Pieces and Safety Film were clamped in the test frame, as required by the test standard.

When tested by the method given in clause 4 in BSEN 12600 each test piece shall either not break or break as defined in the following way:

Numerous cracks appear but no shear or opening is allowed within the test piece through which a 76mm diameter sphere can pass when a maximum force of 25 N is applied. Additionally if particles are detached from the test piece up to 3 minutes after impact, they shall, in total, weigh no more than a mass equivalent to 10,000 mm<sup>2</sup> of the original test piece. The largest single particle shall weigh less than the mass equivalent to 400 mm<sup>2</sup> of the original test piece.

Tested By: M Cox and S Rice of Wintech Engineering Ltd.

Testing Witnessed By: Brian Wong of 3M United Kingdom Plc

Report Compiled By: T A Speak

Signed:

Technically Approved By: R W Withers  
Technical and Quality Manager

Signed:

Date of Issue: 13<sup>th</sup> October 2006

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