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**Impact Testing of Organic coated Glass in
accordance with ANSI Z97.1-2009 and CPSC 1201**

3M Renewable Energy
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Scotchshield Ultra Prestige S50

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INTRODUCTION:

The following report presents the results of impact testing of organic coated glass in accordance with the ANSI Z97.1-2009 and CPSC 1201 standards. Testing was requested by Paul Neumann of 3M Renewable Energy. The samples were received on, and testing was performed by Adam Scarlett on November 25th, 2014 through December 3rd, 2014.

SUMMARY OF RESULTS:

3M Scotchshield Ultra Prestige S50 film when applied to nominal 1/4" annealed glass **Complies** with the safety glazing impact requirements of 16 CFR CPSC 1201 (Category I & II).

TEST METHOD AND RESULTS:
Impact Test

Specimens were kept at a temperature of 70-80° F for a minimum of four hours preceding the test. Specimens were impacted alternating on the glass side and the film side, as noted in the tables in the following results section. Each specimen was struck once within 1/2 inch of center, with a shot bag constructed in accordance with the specifications referenced, swinging in a pendulum arc, from a drop height shown below.

3M Scotchshield Ultra Prestige S50 - 1/4" Annealed Glass CPSC 1201 (Category I & II)						
Sample Identification	Impact Side	Total Thickness Inches	Drop Height Inches	Largest Fragment (g)	All Ratable Fragments (g)	Results/Size of Opening
#1	Glass	0.231	48	17	40	No tears / no openings – PASS
#2	Film	0.233	48	11	11	No tears / no openings – PASS
#5	Film	0.233	18	0	0	No tears / no openings – PASS
#6	Glass	0.232	18	0	0	No tears / no openings – PASS



EAR-CONTROLLED DATA

CALIBRATED TEST EQUIPMENT:

- PT-173-032 Starrett Micrometer
 - PT-170-016 Chatillon Force Gauge
 - PT-173-018 Sartorius Scale
 - PT-177-012 Tape Measure
- Calibration Due: 10/24/2015
Calibration Due: 02/24/2015
Calibration Due: 08/27/2015
Calibration Due: 02/07/2018

DISPOSITION OF SAMPLE:

Samples were destroyed during testing and disposed of immediately.

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