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

3M Renewable Energy  
Attn: Paul Neumann  
3M Center, 207-1W-08  
Maplewood, MN 55144

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Author: Josh Garrison  
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## Safety Neutral S35

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## EAR-CONTROLLED DATA

### **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 25<sup>th</sup>, 2014 through December 3<sup>rd</sup>, 2014.

### **SUMMARY OF RESULTS:**

3M Safety Neutral S35 film when applied to nominal ¼” annealed glass **Complies** with the safety glazing impact requirements of ANSI Z97.1-2009 (Class A and B, Unlimited) and 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 ½ 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 Safety Neutral S35 - 1/4” Annealed Glass ANSI Z97.1-2009 (Class A) and CPSC 1201 (Category II)				
Sample Identification	Impact Side	Total Thickness Inches	Drop Height Inches	Results/Size of Opening
#1	Glass	0.233	48	No tears / no openings – PASS
#2	Film	0.232	48	No tears / no openings – PASS
#3	Glass	0.234	48	No tears / no openings – PASS
#4	Film	0.233	48	No tears / no openings – PASS

**EAR-CONTROLLED DATA**

<b>3M Safety Neutral S35 - 1/4" Annealed Glass            ANSI Z97.1-2009 (Class B) and CPSC 1201 (Category I)</b>				
Sample Identification	Impact Side	Total Thickness Inches	Drop Height Inches	Results/Size of Opening
#1	Film	0.233	18	No tears / no openings – PASS
#2	Film	0.233	18	No tears / no openings – PASS
#3	Glass	0.233	18	No tears / no openings – PASS
#4	Glass	0.233	18	No tears / no openings – PASS

**CALIBRATED TEST EQUIPMENT:**

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

**DISPOSITION OF SAMPLE:**

Samples were destroyed during testing and disposed of immediately.

**Prepared by:**

**Josh Garrison  
 Product Evaluation Technician**
**Reviewed by:**

**Brian S. Escherich  
 Operations Manager**