ITS TEST REPORT #3009496-231-02

REPORT

OF

IMPACT TESTS

OF

7MM
PYROGUARD
GLAZING

FOR

CGI INTERNATIONAL LTD.
DILLAM LANE
WARRINGTON, CHESHIRE, UNITED KINGDOM WA2 7NT

BY

INTERTEK TESTING SERVICES NA INC.
8431 MURPHY DRIVE
MIDDLETON, WISCONSIN 53562

TEST DATE: OCTOBER 2, 2001
REPORT DATE: OCTOBER 2, 2001

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RESULTS

IMPACT TESTS

<table>
<thead>
<tr>
<th>Sample</th>
<th>Average Thickness (mm)</th>
<th>Impact Height Inches</th>
<th>Results</th>
<th>Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>6.84</td>
<td>18</td>
<td>No cracking</td>
<td>No shear or opening &gt;3&quot; diameter</td>
</tr>
<tr>
<td>#2</td>
<td>6.77</td>
<td>18</td>
<td>No cracking</td>
<td>No shear or opening &gt;3&quot; diameter</td>
</tr>
<tr>
<td>#3</td>
<td>6.79</td>
<td>18</td>
<td>Cracking occurred</td>
<td>No shear or opening &gt;3&quot; diameter</td>
</tr>
<tr>
<td>#4</td>
<td>6.85</td>
<td>18</td>
<td>No cracking</td>
<td>No shear or opening &gt;3&quot; diameter</td>
</tr>
</tbody>
</table>

A boil test was previously conducted on this product in accordance with ANSI Z97.1 1984 section 5.2 with no cracking or bubbles forming in the laminate (This complies with the requirements specified in the standard). Reference ITS test report #J20054357-231-01.

CONCLUSIONS

The 7mm Pyroguard laminated glazing samples under evaluation met the 18 inch impact requirements of ANSI Z97.1 1984.

Test Conducted by: 
Russ Burt
Associate Engineer

Report Reviewed by: 
Jim Turgeson
Fenestration Manager
INTRODUCTION

This report gives the results of the evaluation of the provided sample (Job #3009496 - 231). The test results described in this report are limited to the submitted items. On October 2, 2001, Intertek Testing Services performed tests on 7mm Pyroguard laminated glazing at the ITS Middleton, Wisconsin facility for CGI International Ltd. The samples were tested in accordance to ANSI Z97.1 1984.

Dimensional measurements taken with a digital caliper WHI #264 had an accuracy of +/- 0.001-inch. All impacts were made within +/- 1 foot pound of the indicated force.

SPECIMEN DESCRIPTION

Manufacturer: CGI International Ltd.
Specimen size: 34” wide by 76”high by 7mm thick (Nominal).
Description of typical specimen: Pyroguard Fire Resistant Impact Safety Glass
- Two layers of 2.87mm glass laminated together.
- Resin innerlayer

PROCEDURE

The units were installed in a test frame built according to the test specifications in ANSI Z97.1 1984. The following test was conducted on the samples:

♦ Impact test per ANSI Z97.1 1984
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Services NA Inc.
Test Report

Intertek Testing Services
ETL SEMKO
ITS TEST REPORT #3009496-231-01

REPORT

OF

IMPACT TESTS

OF

7MM
PYROGUARD
GLAZING

FOR

CGI INTERNATIONAL LTD.
DILLAM LANE
WARRINGTON, CHESTER, UNITED KINGDOM WA2 7NT

BY

INTERTEK TESTING SERVICES NA INC.
8431 MURPHY DRIVE
MIDDLETON, WISCONSIN 53562

TEST DATE: OCTOBER 2, 2001
REPORT DATE: OCTOBER 2, 2001

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INTRODUCTION

This report gives the results of the evaluation of the provided sample (Job #3009496 - 231). The test results described in this report are limited to the submitted items. On October 2, 2001, Intertek Testing Services performed tests on 7mm Pyroguard laminated glazing at the ITS Middleton, Wisconsin facility for CGI International Ltd. The samples were tested in accordance to CPSC 16CFR 1201-98.

Dimensional measurements taken with a digital caliper WHI #264 had an accuracy of +/- 0.001-inch. All impacts were made within +/- 1 foot pound of the indicated force.

SPECIMEN DESCRIPTION

Manufacturer: CGI International Ltd.
Specimen size: 34” wide by 76” high by 7mm thick (Nominal).
Description of typical specimen: Pyroguard Fire Resistant Impact Safety Glass
- Two layers of 2.87mm glass laminated together.
- Resin innerlayer

PROCEDURE

The units were installed in a test frame built according to the test specifications in CPSC 1201.4. The following test was conducted on the sample:

♦ Impact test per CPSC 1201 11-98
RESULTS

IMPACT TESTS

<table>
<thead>
<tr>
<th>Sample</th>
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</table>

A boil test was previously conducted on this product in accordance with CPSC 1201.4 with no cracking or bubbles forming in the laminate (This complies with the requirements specified in the standard). Reference ITS test report #J20054357-231-01.

CONCLUSIONS

The 7mm Pyroguard laminated glazing sample under evaluation tested per the requirements of CPSC 1201 – 98 Impact test, met the safety requirements of Category I.

Test Conducted by:

Russ Burt
Associate Engineer

Report Reviewed by:

Jim Turgeson
Fenestration Manager
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