

Ballistic Testing Services

Report Number: BTR-02-19-2010-Project Summary

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CloseFocusResearch.com

Name: Intermat Inc.
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 Phone: 866-469-7432

Date Issued February 19, 2010
 Contact: Carleton Elliott
 Email: support@sureboard.com

Project Summary

Type of Products to be tested: Series 200B Wall Assembly
 Test Specimen Sample sizes: 48 x 60 x 5.3 inches
 Need the Tests performed by: February 25, 2010

Test Weapons and Ammunition

UL752 Level 3 Weapon / Ammo: Ruger Super Redhawk .44 Magnum - 9.5 inch barrel / .44 Magnum 240 grain Semi Wad Cutter (SWC)
 UL752 Level 3 Velocity Range: 1,350 to 1,485 ft/sec
 Average Measured Velocity: 1,420 ft/sec
 Shot Spacing (inch) 4.0 inch triangle
 UL752 Level 8 Weapon / Ammo: Springfield Armory SAR-48 (FN FAL) 7.62 NATO - 21 inch barrel / 7.62 x 51 mm NATO 150 grain (M80)
 UL752 Level 8 Velocity Range: 2,750 to 3,025 ft/sec
 Average Measured Velocity: 2,845 ft/sec
 Shot Spacing (inch) 4.5 inch square
 UL752 Witness plate: 0.125 in. thick corrugated cardboard

UL752 Level 3 - 44 magnum Test Summary

Test	Test Area	Angle	# of shots	Bullet Weight	Avg Velocity	Pen.	Results
Test 1 - UL752 Level 3	Left side top center section	0°	3 shots	240 grain	1,420 ft/sec	NP	Pass
Test 2 - UL752 Level 3	Left side middle center section	0°	3 shots	240 grain	1,420 ft/sec	NP	Pass
Test 3 - UL752 Level 3	Left side bottom center section	0°	3 shots	240 grain	1,420 ft/sec	NP	Pass
Test 4 - Single Shot	Left side top left seam	0°	1 shot	240 grain	1,420 ft/sec	NP	Pass
Test 5 - Single Shot	Left side middle left seam	0°	1 shot	240 grain	1,420 ft/sec	NP	Pass
Test 6 - Single Shot	Left side bottom left seam	0°	1 shot	240 grain	1,420 ft/sec	NP	Pass
Test 7 - Single Shot	Left side top right seam	0°	1 shot	240 grain	1,420 ft/sec	NP	Pass
Test 8 - Single Shot	Left side middle right seam	0°	1 shot	240 grain	1,420 ft/sec	NP	Pass
Test 9 - Single Shot	Left side bottom right seam	0°	1 shot	240 grain	1,420 ft/sec	NP	Pass

UL752 Level 8 - 7.62 x 51 mm NATO Test Summary

Test	Test Area	Angle	# of shots	Bullet Weight	Avg Velocity	Pen.	Results
Test 10 - UL752 Level 8	Right side top left section	0°	5 shots	150 grain	2,845 ft/sec	NP	Pass
Test 11 - UL752 Level 8	Right side top right section	0°	5 shots	150 grain	2,845 ft/sec	NP	Pass
Test 12 - UL752 Level 8	Right side bottom left section	0°	5 shots	150 grain	2,845 ft/sec	NP	Pass
Test 13 - UL752 Level 8	Right side bottom right section	0°	5 shots	150 grain	2,845 ft/sec	NP	Pass
Test 14 - Single Shot	Right side top left seam	0°	1 shot	150 grain	2,845 ft/sec	CP	Fail *
Test 15 - Single Shot	Right side middle left seam	0°	1 shot	150 grain	2,845 ft/sec	NP	Pass
Test 16 - Single Shot	Right side middle left seam	0°	1 shot	150 grain	2,845 ft/sec	NP	Pass
Test 17 - Single Shot	Right side bottom left seam	0°	1 shot	150 grain	2,845 ft/sec	NP	Pass
Test 18 - Single Shot	Right side bottom left seam	0°	1 shot	150 grain	2,845 ft/sec	NP	Pass
Test 19 - Single Shot	Right side top right seam	0°	1 shot	150 grain	2,845 ft/sec	NP	Pass
Test 20 - Single Shot	Right side middle right seam	0°	1 shot	150 grain	2,845 ft/sec	NP	Pass
Test 21 - Single Shot	Right side middle right seam	0°	1 shot	150 grain	2,845 ft/sec	NP	Pass
Test 22 - Single Shot	Right side bottom right seam	0°	1 shot	150 grain	2,845 ft/sec	CP	Fail *

* Test 14 and 22 only failed because the projectiles penetrated a section where the internal ballistic resistant wall material was not present.
 NP = No Penetration, CP = Complete Penetration

Test and Report Engineers

Tested and Reported by: Sam Raheb

Signature: *Sam Raheb*

Date: 2/19/2010

Name: Intermat Inc.
Address: 2045 Placentia Ave., Costa Mesa, California 92627
Phone: 866-469-7432

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Test Summary

Ballistic Test Results

This 48 x 60 Series 200B Wall Assembly was subjected to both UL752 Level 3 and Level 8 ballistic tests. The sample was divided vertically into two 24 inch wide sections separated by the wall's center-line structural support member. The left side was used for the UL Level 3 tests and the right side was used for the UL Level 8 tests. Both of the two 24 inch wide vertical sections and shot patterns are shown in [Photo 1 - Impact Side](#).

The Series 200B Wall Assembly passed all of the UL tests except for Tests #14 and 22. In these two single shot tests, the projectiles completely penetrated the wall within 1/2 inch distance of the vertical structural support members. This region is referred to as the "seam" in the table of results shown on page 1.

In [Photo 2 - Rear Side](#), the three 3-shot patterns shown are not complete projectile penetration holes. They are bulges in the drywall surface caused by the projectile impacts from the other side. The powder-like spall ejected off the rear surface appeared to be lite and did not penetrate the 0.125 inch thick corrugated cardboard witness plate.

Photographs

The following two photographs show the **post-test** sample. Additional larger sized photographs are included with this report.



Photo 1 - Impact Side



Photo 2 - Rear Side

Test and Report Engineers

Tested and Reported by: Sam Raheb

Signature: *Sam Raheb*

Date: 2/19/2010

Name: **Intermat Inc.**
Address: **2045 Placentia Ave., Costa Mesa, California 92627**
Phone: **866-469-7432**

Date Issued **February 19, 2010**
Contact: **Carleton Elliott**
Email: support@sureboard.com

Photographs

A Man willing to Risk it all by Standing Behind His Product

International Materials Corporation's Product Development Manager, **Carleton Elliott**, a man who absolutely believes in his product, risked it all by standing 12 inches directly behind the wall in front of the projectile impacts during both a UL752 Level 3 and Level 8 test (3 shots 44 magnum / 5 shots of 7.62 x 51 mm NATO). He remained completely unharmed from all 8 shots. A video of these two tests was taken for documentary purposes.

Photographs

The following photographs show both the pre and post-test sample. Additional larger sized photographs are included with this report.

Sample 1 - Series 200B 48 x 60 inch Wall Assembly - UL752 Level 3 and Level 8



Pretest Impact Side



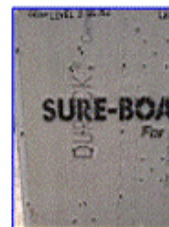
Pretest Impact Side



Pretest Rear Side



Posttest Impact Side UL3



Posttest Impact Side UL3



Posttest Impact Side UL3



Posttest Impact Side UL3



Posttest Rear Side UL3



Posttest Rear Side UL3



Posttest Rear Side UL3



Posttest Rear Side UL3



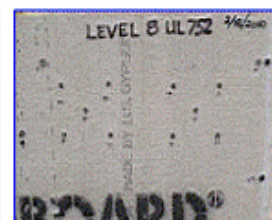
Posttest Rear Side UL3



Posttest Rear Side UL3



Posttest Impact Side UL8



Posttest Rear Side UL8



Posttest Rear Side UL8



Posttest Rear Side UL8



Posttest Impact Side UL3 And UL8



Posttest Rear Side UL3 And UL8



Business Card

Test and Report Engineers

Tested and Reported by: **Sam Raheb**

Signature: *Sam Raheb*

Date: **2/19/2010**