

Ballistic Testing Services

Report Number: BTR-10-02-2009-TBD-Sample 4

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Name: Intermat Inc.
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Report Date: October 2, 2009
 Contact: Carleton Elliott
 Email: support@sureboard.com

Ballistic Results

Project Summary

Type of Products to be tested: **Series 200B Wall Assemblies**
 Test Specimen Sample size(s): **13.4 x 15.5 inch**
 Number of test specimens: **6 Samples**
 Weight of all samples: **210 lbs**
 Are Materials a Health Hazard: **No**
 Need the Tests performed by: **October 5, 2009**
 Need products shipped back: **Yes**
 Purchase Order Number: **TBD**

International Ballistic Standards / Specifications Testing

- ASTM Brunswick FRA NIJ CFR Pass All
 Australian Canadian Germ DIN State Dept CFR SYA
 British EN 1063 MIL-SAMIT UL 752 Other

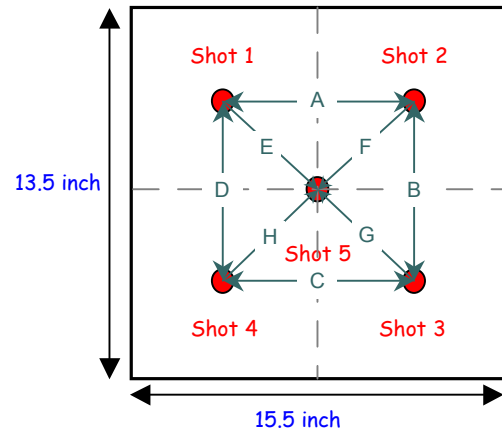
Test Standard: **Underwriters Laboratory UL752**
 Particular Test: **UL Level 8 (.30 cal. 7.62 NATO FMJ)**
 Velocity Range: **2,750 to 3,025 ft/s**
 Number of Shots: **5 shots**
 Spacing / Pattern: **4.5 inch square**

Test Results

Product Number: **Sample 4**
 Sample Type: **Series 200B Wall Assembly**
 Sample Size: **13.5 x 15.5 inch**
 Thickness: **5.3 inch**
 Weight: **45 lbs**
 Weapon Type: **7.62 NATO**
 Cartridge / Projectile Type: **7.62 NATO / M80 FMJ**
 Projectile Weight: **150 grains**
 Target Distance: **15 feet**
 Number of Shots: **5 shots**

Shot Sequence:	Shot 1	Shot 2	Shot 3	Shot 4	Shot 5
Impact Velocity (ft/sec) *:	2,790	2,824	2,822	2,821	2,817
Impact Energy (ft-lbs):	2,592	2,656	2,652	2,650	2,643
Impact Momentum (lb-sec.):	1.86	1.88	1.88	1.88	1.88
Impact Angle (degrees):	0°	0°	0°	0°	0°
Penetration Effect:	NP	NP	NP	NP	NP

Witness plate material: **0.125 in. thick corrugated cardboard**
 Spall catch box: **Not required**
 Witness / Box Distance: **18 inches**
 Spall Occurrence: **None**
 Test Temperature: **75° F**
 Test Date: **October 2, 2009**
 Comments: **Passed the Test**



Impact Spacing (inches)	
A	4.75
B	4.63
C	4.50
D	4.60
E	3.00
F	3.18
G	3.63
H	3.38
Average 4.62	
Average 3.30	

NP = No Penetration
 CP = Complete Penetration

Comments and Test Descriptions

* Velocity measurements were taken at a distance of 6 feet from muzzle.

Test and Report Engineers

Tested and Reported by: **Sam Raheb**

Signature: *Sam Raheb* Date: **October 2, 2009**

Name: Intermat Inc.

Report Date: October 2, 2009

Ballistic Test Results and Photographs

Ballistic Test Results:

The test sample passed the Underwriters Laboratory UL752 Level 8 (.30 cal. 7.62 NATO FMJ) Ballistic test.

Projectile Penetration Effects:

There was no partial or complete projectile penetration of the sample for all 5 shots.

Witness Plate and Spall Effects:

No spall was observed, but no damage to the witness plate occurred.

Photographs

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

Sample 4 - Series 200B Wall Assy - UL Level 8 7.62 NATO - 13.5 x 15.5 x 5.3 inch



Sample 4 Pretest Impact Side Sample 4 Pretest Rear Side Sample 4 Posttest Impact Side Sample 4 Posttest Rear Side

Test and Report Engineers

Tested and Reported by: Sam Raheb

Signature: *Sam Raheb*

Date: October 2, 2009