



Wiltshire Ballistic Services Ltd

The Ranges, Station Road, Devizes
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<http://www.wiltshireballistics.co.uk>

D&E Architectural Hardware Ltd
17 Royce Road, Carr Road Ind. Est.
Peteborough
Cambs.
PE1 5YB
UK

Trial Number 10165

08 October 2013

BALLISTIC TEST REPORT

Please find attached, reports for the following test/s carried out at Wiltshire Ballistic Services on
08 October 2013

Sample Name or No.	Description	Results
DEABL/ Bullet Resistant Door Viewer	5.56x45mm Lithuanian SS109 Ball EN1522/23 FB5	Passed with Spall

The results contained in this report are only valid for the samples tested and detailed above. The publication of these results in any abridged form is not allowed without approval by Wiltshire Ballistic Services Ltd. in writing.

For and on behalf of Wiltshire
Ballistic Services Ltd

08 October 2013



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TEST REPORT
10165 - WBS -08/10/2013
08 October 2013

D&E Architectural Hardware Ltd
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Trial Number	10165	Range Temp (°C)	18.3
Trial Date	08/10/2013	Range Humidity (%)	87
Trial Start Time	09:00	Range Pressure (mBar)	1013
Trial Finish Time	12:00	Range Technician	James May
		Range Technician	James Philbrook
		Range Technician	

Report Completed

Sharon Pflieger-Taylor

Approved Signatory

Emilia Petrou

BALLISTIC TEST DETAILS

EN1522/23 FB5

Velocity From (m/s)	940	Witness Type	Aluminium Foil	Configuration - Muzzle to Target (m)	10.0
Velocity To (m/s)	960	Ammunition	5.56x45mm Lithuanian SS109 Ball	Configuration - Muzzle to Chrono Centre (m)	7.5

This door viewer has been tested to EN1522/3 threat level FB5, which also covers threat levels FB4, FB3, FB2 and FB1

SAMPLE DETAILS

DEABL/PB

DEABL/ Bullet Resistant Door Viewer

D&E Architectural Hardware Lt

Size: 65-95mmx35mm

Weight (kg): 0.190

Shot No.	Velocity m/s	Held/ Penetrated	Trauma Code/Spall Rating	Comments	Test Results
1	954.93	Held	Spall		Pass

SAMPLE DETAILS

DEABL/PC

DEABL/ Bullet Resistant Door Viewer

D&E Architectural Hardware Lt

Size: 65-95mmx35mm

Weight (kg): 0.190

Shot No.	Velocity m/s	Held/ Penetrated	Trauma Code/Spall Rating	Comments	Test Results
1	946.25	Held	Spall		Pass

RESULTS

DEABL/ Bullet Resistant Door Vi

EN1522/23 FB5

Passed with Spall

RANGE EQUIPMENT & CONFIGURATION

THE GUN

All rounds were shot from a track mounted laser-sighted Universal Receiver fitted with the appropriate barrel to give both projectile stability and the required velocity.

VELOCITY MEASUREMENT

The projectile velocity is measured using optical sky screens, with 1.0m separation, positioned on a track-mounted housing fitted with D.C. light sources to detect the passage of the projectile. The optical sky screens are connected to an electronic timing unit and velocity calculating computer, each unit being calibrated and certified in accordance with the manufacturer's requirements. The accuracy of the velocity measurement equipment has been calculated to be 0.17% overall.

NOTE: Unless otherwise stated, projectile velocity is measured at a point 2.5m from the attack face of the sample under test.

SAMPLE HOLDER

The track mounted sample holder trolley is of heavy steel construction to form a rigid mounting into which various specialised sample holders can be fitted to meet a multitude of different testing standards. Provision is also made to allow for turning samples to predetermined angles for angled attacks.

PROJECTILE STABILITY

Where necessary the projectile stability was tested by firing the rounds through a test/witness panel set-up in the same place as the sample to be shot.

SHOT PLACEMENT

All firing is carried out using a laser-sighted Universal Receiver. Accuracy tends to be far better than would usually be the case when hand-held weapons are used. Therefore, unless otherwise stated, all shots have hit the sample in the required pattern and with the required spacing.

WITNESS/BACKING MATERIAL (As Detailed in Report)

PLASTILINA

The material backing is a steel tray measuring 450 x 350 x 95mm filled with Roma Plastilina® No.1 with no air gaps which is replaced every 6 months. This is heated to approximately 40°C so it conforms to the calibration requirements.

CALIBRATION: A steel sphere of grade 100, diameter 63.5mm, and mass 1.043kg is dropped from a height of 2m onto the Plastilina. The mean resulting depression from three drops must be 19mm +/- 2mm.

T3 ALUMINIUM ALLOY

The witness system comprises of a 0.5mm +/- 0.05mm thick 2024 T3 aluminium alloy sheet with a minimum tensile strength of 440N/mm² mounted securely 150mm +/- 10mm behind the sample.

ALUMINIUM FOIL

The witness system comprises of a 0.02mm piece of aluminium foil weighing 54g/m² and measuring 700mm x 525mm mounted securely in a splinter collecting box, 500mm +/- 10mm behind the sample.



WILTSHIRE BALLISTIC SERVICES

TESTING CERTIFICATE

Certificate Number: 08/10/2013 10165417

This is to certify that

DEABL/ Bullet Resistant Door Viewer

manufactured by

D&E Architectural Hardware Ltd

Of

17 Royce Road, Carr Road Ind. Est.
Peteborough
Cambs.
PE1 5YB
UK

has been tested in accordance with the standard

BS EN1522/23

and has passed all requirements to threat level FB5 with Spall

Devizes, Wiltshire, UK
08 October 2013

Place and Date of Testing

bsi.

Management Representative



WILTSHIRE BALLISTIC SERVICES

TESTING CERTIFICATE

Certificate Number: 08/10/2013 10165417

This is to certify that

DEABL/ Bullet Resistant Door Viewer

manufactured by

D&E Architectural Hardware Ltd

Of

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Peteborough
Cambs.
PE1 5YB
UK

has been tested in accordance with the standard

BS EN1522/23

and has passed all requirements to threat level FB4 with Spall

Devizes, Wiltshire, UK
08 October 2013

Place and Date of Testing

bsi.

Management Representative



WILTSHIRE BALLISTIC SERVICES

TESTING CERTIFICATE

Certificate Number: 08/10/2013 10165417

This is to certify that

DEABL/ Bullet Resistant Door Viewer

manufactured by

D&E Architectural Hardware Ltd

Of

17 Royce Road, Carr Road Ind. Est.

Peteborough

Cambs.

PE1 5YB

UK

has been tested in accordance with the standard

BS EN1522/23

and has passed all requirements to threat level FB3 with Spall

Devizes, Wiltshire, UK

08 October 2013

Place and Date of Testing

bsi.

Management Representative



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Of

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UK

has been tested in accordance with the standard

BS EN1522/23

and has passed all requirements to threat level FB2 with Spall

Devizes, Wiltshire, UK
08 October 2013

Place and Date of Testing

bsi.


Management Representative



WILTSHIRE BALLISTIC SERVICES

TESTING CERTIFICATE

Certificate Number: 08/10/2013 10165417

This is to certify that

DEABL/ Bullet Resistant Door Viewer

manufactured by

D&E Architectural Hardware Ltd

Of

17 Royce Road, Carr Road Ind. Est.
Peterborough
Cambs.
PE1 5YB
UK

has been tested in accordance with the standard

BS EN1522/23

and has passed all requirements to threat level FB1 with Spall

Devizes, Wiltshire, UK
08 October 2013

Place and Date of Testing

bsi.

Management Representative