

S.M.S. TESTING

S.M.S. TESTING BALLISTIC R&D TEST SHEET V-0

Client: Dayton Armor
Date: 1/8/2021
Project: R&D

PANEL IDENTIFICATION

Manufacturer: Dayton Armor
Size: 14.00 x 10.00 in.
Apex Thk.: .375 in.
Description: Hard armor sample

Sample No: 2021-0106-301B-RF1
Weight: 1.75 lbs
Layer count: NA
Technician: Murray

TEST METHOD

Shot Spacing: PER CUSTOMER
Witness Panel: CLAY
Backing Material: 5.5" CLAY/PLYWOOD
Obliquity 0 DEG
Conditioning: DRY

TEST DISTANCE

Muzzle to Target: 17.0 FT
Target to Witness: NA
VS Screens 5
Midpoint to Target: 8.2
VR Screens

Temp: 67.1° F.
BP: 28.82
RH: 48%

AMMUNITION

- 1) 5.56 x 45 M193 55gr.
- 2)
- 3)

LOT # & MANUFACTURER

- 1) MIL
- 2)
- 3)

POWDER

- 1) N120
- 2)
- 3)

TEST STANDARD OR PROCEDURE

- 1) 3250+50 fps
- 2)
- 3)

Shot No.	Charge Wt.	Time 1	Velocity 1 (ft/s)	Time 2	Velocity 2 (ft/s)	Velocity Average	Results P / C	Shot Location	Deformation (mm)
1	20.9	0.00153	3264	0.001532	3264	3264	P	apex	26.4
2	20.9	0.00153	3260	0.001534	3260	3260	P	right edge	24.8
3	20.9	0.00153	3272	0.001528	3272	3272	P	bot. left	31.1
REMARKS: Plate tested as a stand alone.					MISC. TEST INFORMATION: Clay Block ID: 2 Clay Drops: 23.1 mm, 25.6 mm, 25.7 mm Clay Temp.: 102.1° F.				

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PANEL IDENTIFICATION

Manufacturer: Dayton Armor
Size: 14.00 x 10.00 in.
Apex Thk.: .375 in.
Description: Hard armor sample

Sample No: 2021-0106-301A-RF1
Weight: 1.75 lbs
Layer count: NA
Technician: Murray

TEST METHOD

Shot Spacing: PER CUSTOMER
Witness Panel: CLAY
Backing Material: 5.5" CLAY/PLYWOOD
Obliquity 0°
Conditioning: DRY

TEST DISTANCE

Muzzle to Target: 17.0 FT
Target to Witness: NA
VS Screens 5
Midpoint to Target: 8.2
VR Screens

Temp: 65.3° F.
BP: 28.79
RH: 45%

AMMUNITION

- 1) 7.62 X 51 M80 147 GR SJLC
- 2)
- 3)

LOT # & MANUFACTURER

- 1) MILITARY
- 2)
- 3)

POWDER

- 1) N133
- 2)
- 3)

TEST STANDARD OR PROCEDURE

- 1) 2780+30 fps
- 2)
- 3)

Shot No.	Charge Wt.	Time 1	Velocity 1 (ft/s)	Time 2	Velocity 2 (ft/s)	Velocity Average	Results P / C	Shot Location	Deformation (mm)
1	38.9	0.00179	2801	0.001785	2801	2801	P	apex	43.9
2	38.9	0.00179	2795	0.001788	2796	2796	P	right edge	42.5
3	38.9	0.00179	2800	0.001785	2801	2801	P	bot. left	42.9
REMARKS: Plate tested as a stand alone.					MISC. TEST INFORMATION: Clay Block ID: 1 Clay Drops: 24.1 mm, 23.8 mm, 22.8 mm Clay Temp.: 99.6° F.				

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S.M.S. TESTING BALLISTIC R&D TEST SHEET V-0

Client: Dayton Armor
Date: 1/8/2021
Project: R&D

PANEL IDENTIFICATION

Manufacturer: Dayton Armor
Size: 14.00 x 10.00 in.
Apex Thk.: 378 in.
Description: Hard armor sample

Sample No: 2021-0106-301C-RF1
Weight: 1.74 lbs
Layer count:
Technician: Murray

TEST METHOD

Shot Spacing: PER CUSTOMER
Witness Panel: CLAY
Backing Material: 5.5" CLAY/PLYWOOD
Obliquity 0°
Conditioning: DRY

TEST DISTANCE

Muzzle to Target: 17.0 FT
Target to Witness: NA
VS Screens 5
Midpoint to Target: 8.2
VR Screens

Temp: 65.3° F.
BP: 28.79
RH: 45%

AMMUNITION

- 1) 7.62x39 MSC 123 gr.
- 2)
- 3)

LOT # & MANUFACTURER

- 1) RUSSIAN
- 2)
- 3)

POWDER

- 1) 4227
- 2)
- 3)

TEST STANDARD OR PROCEDURE

- 1) 2380+30 fps
- 2)
- 3)

Shot No.	Charge Wt.	Time 1	Velocity 1 (ft/s)	Time 2	Velocity 2 (ft/s)	Velocity Average	Results P / C	Shot Location	Deformation (mm)
1	22.7	0.00208	2405	0.002079	2405	2405	P	apex	38.2
2	22.7	0.00207	2415	0.002071	2414	2415	P	right edge	34.5
3	22.5	0.00209	2396	0.002087	2396	2396	P	bot. left	38.4
REMARKS: Plate tested as a stand alone.					MISC. TEST INFORMATION: Clay Block ID: 1 Clay Drops: 24.1 mm, 23.8 mm, 22.8 mm Clay Temp.: 99.6° F.				