S.M.S. TESTING

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BALLISTIC R&D TEST SHEET
V-50

Client: Dayton Armor
Date: 1/26/2020
Project: R&D

PANEL IDENTIFICATION

Manufacturer: Dayton Armor
Size: Medium
Apex Thk.: .479 in.
Description: Hard armor sample

Sample No: DA-RF2-8 (M855 V0)
Weight: 2.95 lbs
Layer count:
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: 74.6 F.
BP: 28.88
RH: 40%

AMMUNITION

1) 5.56 x 45 M855 62gr.
2)
3)

LOT # & MANUFACTURER

1) MIL
2)
3)

POWDER

1) N120
2)
3)

TEST STANDARD OR PROCEDURE

1) 3115 + 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	21.3	0.00159	3148	0.001588	3148	3148	P		apex	37.2
2	21.3	0.00158	3157	0.001582	3161	3159	P		right edge	32.4
3	21.3	0.0016	3126	0.001599	3126	3126	P		bot. left	36.8

REMARKS:

Sample tested as a stand alone.

MISC. TEST INFORMATION:

Clay Block ID: 6
Clay Drops: 24.6 mm, 26.2 mm, 27.0 mm
Clay Temp.: 99.7° F.

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BALLISTIC R&D TEST SHEET
V-50

Client: Dayton Armor
Date: 1/26/2020
Project: R&D

PANEL IDENTIFICATION

Manufacturer: Dayton Armor
Size: Medium
Apex Thk.: .485 in.
Description: Hard armor sample

Sample No: DA-RF2-9 (M855 V0)
Weight: 2.96 lbs
Layer count:
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: 74.6 F.
BP: 28.88
RH: 40%

AMMUNITION

1) 5.56 x 45 M855 62gr.
2)
3)

LOT # & MANUFACTURER

1) MIL
2)
3)

POWDER

1) N120
2)
3)

TEST STANDARD OR PROCEDURE

1) 3115 + 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	21.3	0.00158	3159	0.001583	3159	3159	P		apex	30.9
2	21.3	0.00159	3154	0.001585	3154	3154	P		right edge	28.7
3	21.3	0.0016	3117	0.001602	3121	3119	P		bot. left	32.1

REMARKS:

Sample tested as a stand alone.

MISC. TEST INFORMATION:

Clay Block ID: 6
Clay Drops: 24.6 mm, 26.2 mm, 27.0 mm
Clay Temp.: 99.7° F.

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BALLISTIC R&D TEST SHEET
V-50

Client: Dayton Armor
Date: 1/26/2020
Project: R&D

PANEL IDENTIFICATION

Manufacturer: Dayton Armor
Size: Medium
Apex Thk.: .481 in.
Description: Hard armor sample

Sample No: DA-RF2-10 (M855 V0)
Weight: 2.95 lbs
Layer count:
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: 74.6 F.
BP: 28.88
RH: 40%

AMMUNITION

1) 5.56 x 45 M855 62gr.
2)
3)

LOT # & MANUFACTURER

1) MIL
2)
3)

POWDER

1) N120
2)
3)

TEST STANDARD OR PROCEDURE

1) 3115 + 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	21.3	0.00159	3139	0.001591	3142	3141	P		apex	39.1
2	21.3	0.0016	3133	0.001596	3133	3133	P		right edge	33.3
3	21.3	0.0016	3133	0.001595	3134	3134	P		bot. left	37.1

REMARKS:

Sample tested as a stand alone.

MISC. TEST INFORMATION:

Clay Block ID: 6
Clay Drops: 24.6 mm, 26.2 mm, 27.0 mm
Clay Temp.: 99.7° F.