

TEST REPORT



DATE OF RECEPTION
12/04/2021

DATE TESTS
Starting: 12/04/2021
Ending: 13/04/2021

IDENTIFICATION AND DESCRIPTION OF SAMPLES

REFERENCES

PLATE TP-3.15 IV SA

TESTS CARRIED OUT

- BALLISTIC RESISTANCE TEST.



SAMPLE DESCRIPTION

PHOTOGRAPHY



Reference ⁽¹⁾
PLATE TP-3.15 IV SA

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RESULTS

BALLISTIC RESISTANCE TEST

Standard

Test in compliance with the Perforation and Backface Signature Test (P-BFS) according to point 7.8 from NIJ 0101.06 but with the deviations to the standard listed below.

Standard deviation

The complete tests according to NIJ 0101.06 standard are not performed. Two samples are tested with one shot with the ammunition 30.06 corresponding to level IV, for the Ballistic Penetration and Backface Signature Test. According to the customer indications, the previous thermal pretreatment according to the Hard Armor Conditioning Protocol paragraph 6 from NIJ 0101.06 must not be done before the ballistic test; neither the mechanical durability test (drop test) nor the water submersion.

Apparatus

Shooting range 130371E12

Reference

PLATE TP-3.15 IV SA

Sample description

255 x 305 mm plates with black cover tested stand alone. AITEX unknowns the exact composition of the sample. The weight for each sample is:

SAMPLE 1	SAMPLE 2
3084 g	3077 g

Sample conditioned

24 h at (25 ± 10) °C and a relative humidity of 20 % to 50 %

Pretreatment

Handload velocity test

OK

Test date

13th April 2021

Test conditions

(22.3 – 22.4)°C and (47.2 – 47.4)% R.H.

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RESULTS

Roma #1 Plastiline Calibration

AVERAGE: 18.6 mm (before the test) and temperature 39°C
AVERAGE: 17.5 mm (after the test) and temperature 36°C

Velocity measurement

The velocity measurement is made using optical barriers and radar. In the tables of results, it is shown the speed measured by the optical barriers.

Test shot distance

15 m

Impacts position

One shot on the center of the sample.

Armor Strapping

According to the standard NIJ 0101.06

Requirements

No perforation by the bullet, fragment of the bullet, or fragment from the plate/insert through the armor. The traumas must not be higher than 44 mm.

Test uncertainty

± 1.0 m/s in the velocity measurement and ± 0.2 mm in the trauma measurement

Caliber

30.06 AP M2 10.8 g at (878 ± 9.1) m/s

SAMPLE 1

POSITION	ANGLE	VELOCITY (m/s)	FAIR HIT (Yes/No)	PERFORATION	TRAUMA (mm)
1	0°	891.1	Yes	No	31

SAMPLE 1

POSITION	ANGLE	VELOCITY (m/s)	FAIR HIT (Yes/No)	PERFORATION	TRAUMA (mm)
1	0°	888.2	Yes	No	30

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Maria Cairols
Ballistic Lab. Technician

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