

Beschussamt Mellrichstadt

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Rofi Industrier AS
Arosetervegen 5

N-6422 Molde

Test Report

Determination of the V-50 ballistic limit for body protection material according to STANAG 2920.

Report-no. : 10V143B01#, to order-no.: 8034
Test date ...: 10.05.2010
Tester: Volkheimer

Applicant : Rofi Industrier AS
Manufacturer : Rofi Industrier AS
Sample : visor No. 2
Part-no. : -2-

The V-50 ballistic limit is determined by the average of an equal number of highest partial penetration velocities and the lowest complete penetration velocities which occur within a specified velocity spread.




Bötsch

Mellrichstadt, 10.05.2010

The test results are only valid for the samples described in this test report.

This test report is only valid with the correspondence of the report numbers on all pages and with the official seal.

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Report no. : 10V143B01#
Report part no.:
Date: 10.05.2010

Description of the sample in shooting direction (specification of the manufacturer):

double visor protection with head holder
protection one: 1,0mm polycarbonate, 170x420mm
placed in the middle of the second visor protection
visor one and two stuck together with a strip of foam at the edge,
thickness: 2,0mm, breadth: 10,0mm
protection two: 5,2mm polycarbonate, 300x480mm

Weight of the sample (g):1088

Test conditions:

Calibre: 5,385mm
Bullet type: acc. to STANAG 2920 A3/6723/1
Bullet mass(g): 1,102
Weapon: test barrel cal. .30, twist length 20 inch
Barrel length(mm): 650

Shooting distance(m): 3,80
Angle of incidence (degree): 90 (0° NATO)

Room temperature(°C): 20
Humidity(%): 42
Sample temperature.....(°C): 20

Conditioning of the sample:
24 hours at a temperature of 20 +/- 2°C and a humidity of 65 +/- 5%

Results:

hit no.	partial penetration			hit no.	complete penetration		
	V(2,30) [m/s]	[fps]	E(2,30) [J]		V(2,30) [m/s]	[fps]	E(2,30) [J]
1	279,0	915,4	42,9	9	289,0	948,2	46,0
10	281,0	921,9	43,5	8	293,0	961,3	47,3
5	284,0	931,8	44,4	4	296,0	971,1	48,3
6	288,0	944,9	45,7	7	296,0	971,1	48,3
2	298,0	977,7	48,9	3	297,0	974,4	48,6
average	286,0	938,3	45,1	average	294,2	965,2	47,7

V-50 Ballistic limit:	[m/s]	[fps]	E-50 [J]
instrumental velocity	V = 290,1	951,8	46,4
velocity loss	VL = 5,7	18,7	
striking velocity	VS = 284,4	933,1	44,6