

Beschussamt Mellrichstadt

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Rofi AS
Eikremsvingen 2C
NO-6422 Molde

Test Report

Determining the ballistic limit V50 according to
STANAG AEP-2920, Edition A Version 2

Date of issue
of the guideline : 9/2016

Requirement : V50 against appendix H.1 - ASSESSMENT OF V50

Report No : 24V002B01#, order No.:00004
Date of delivery : 18.12.2023
Tester : Treuting

Sample : soft armour pattern
Designation : Insert for Rofi Ravelin OB MKII vest

Applicant : Rofi AS
Manufacturer : Rofi AS

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

see appendix 2
sample 2


Böttsch



Mellrichstadt, 03.01.2024

The test results relate only to the tested samples described in
this test report.
This test report is only valid with the official seal and
correspondence of the report numbers on all pages.
Duplication in extracts of this test report is not allowed. It is
permitted to pass on this test report without description of the
specimen.

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Report-No.: 24V002B01#
Report part-No.:
Test date: 20.12.2023

Test specifications and results:

Size of the sample (mm) : 400 x 400
Total weight determined by the Beschussamt (g) : 485

Calibre : 5,385mm
Bullet type : FSP (STANAG 2920, A3/6723/1, Rei, CN191)
Bullet mass : 1,102g
Weapon : Prüflauf Nr. 01/07
Barrel length : 650mm
Twist length : 508mm
Shooting distance : 3,80m
Room temperature : 21°C
Humidity : 34%
Penetration witness : 0.5mm Al-sheet
Sample fixation : clamping frame 400mm x 400mm
Sample preparation : 24 hours at 20+-2°C and 65+-5% humidity

Hit pattern (preset) : BWB-TL8470-0064

No	veloc. v(2,30) [m/s]	energy E(2,30) [J]	pene- trat. J/N	angle [deg.] 1.)	remarks
1	481	127	J	90,0	
2	460	117	N	90,0	
3	465	119	J	90,0	
4	466	120	N	90,0	
5	462	118	N	90,0	
6	461	117	N	90,0	
7	467	120	J	90,0	
8	470	122	J	90,0	
9	461	117	N	90,0	
10	481	127	J	90,0	

1.) 90 degree = 0 degree NATO

The evaluation of penetration or no penetration was carried out according to STANAG AEP-2920

V50 ballistic limit:		[m/s]	[fps]	E-50 [J]
instrumental velocity:	V =	467,4	1533,1	120,4
velocity loss:	VL =	12,6	41,3	
striking velocity:	VS =	454,8	1491,7	114,0

This report consists of 2 pages and 2 appendix

Abkürzungen / abbreviations

Geschossarten / bullet types:

L	Blei	Lead
FMs	Vollmessing	Full Brass
CB	Kegelstumpfgeschoss	Coned Bullet
FMJ	Vollmantel	Full Metal Jacket
RN	Rundkopf	Round Nose
SC	Weichkern	Soft Core
HC	Hartkern	Hard Core
WC	Wolframcarbidkern	Tungsten Core
PB	Spitzkopfgeschoss	Pointed Bullet
FN	Flachkopf	Flat Nose
FeC	Weicheisenkern	Fe-Core
SCP	Weichkern mit Penetrator	Soft Core Penetrator
TPSC	Zwei Stahlkerne	Two-piece Steel Core
I	Brandsatz	Incendiary
JSP	Teilmantelgeschoss	Jacketed Soft Point
JHP	Teilmantelhohlspitzgeschoss	Jacketed Hollow Point
SJSP	Teilmantelgeschoss	Semi Jacketed Soft Point
SJHP	Teilmantelhohlspitzgeschoss	Semi Jacketed Hollow Pont
SWC	Scharfrandgeschoss	Semiwadcutter

Bemerkungen / comments:

oM	ohne Merkmal	without marks
l	leicht (z.B. leichte Beule ...)	slight (e.g. slight bulge ...)
s	stark (z.B. starker Splitterabgang)	serious (e.g. serious fragmentation)
BoR	Beule ohne Riss	bulge without cracks
BmR	Beule mit Riss	bulge with cracks
BmRoL	Beule mit Riss ohne Lichtdurchlass	bulge with cracks without light
BmRmL	Beule mit Riss mit Lichtdurchlass	bulge with cracks with light
SA	Splitterabgang	fragmentation
SF	splitterfrei	no fragmentaion
gLD	glatter Durchschuss	complete penetration
SpD	Spitzendurchbruch	partial penetration
S	Splitterbildung nach DIN EN ²	fragmentation described by DIN EN ²
NS	Splitterfrei nach DIN EN ²	no fragmentation described by DIN EN ²

²DIN EN 1063, DIN EN 1522/1523

Sonstige / miscellaneous:

J	Ja	yes
N	Nein	no
SI	Splitterindikator	fragmentation witness plate
DI	Durchschussindikator	penetration witness plate
TA	Trefferabstand	hit distance
FG	Flächengewicht	mass per unit area
MH	Multihit	

Revision, 25.06.2020

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Appendix : 2
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Sample 2:

Insert for Rofi Ravelin OB MKII vest for demining in V50 450 m/sec. STANAG 2920

Designation:

Manufactured 05.04.2018.

Detailed description of the sample construction in direction of attack:

Quantity: 1

Nominal thickness:

Type of material: Teijin Twaron CT714 aramid 190 g/m2

Manufacturer: Rofi AS

Mass per unit area: 14 layers CT714 plus PU coated aramid cover

Dimensions:

Size: 40 x 40 cm

Nominal thickness:

Mass per unit area: 0,48 kg

Information about Tailoring: