

VPAM

Association of testing
institutes for attack-
resistant materials and
constructions

Addendum
**Ammunition types for
special testing**

VPAM AND #01
Version 1
Status: 12.06.2015

ADDENDUM
to VPAM – APR 2006

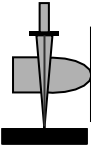
"Ammunition types for special testing"

AND #01
Version 1

English translation, the German original version always applies
Status: 12.06.2015

Editor:

Association of testing institutions for attack-resistant materials and
constructions (VPAM)

 <p>VPAM Association of testing institutes for attack- resistant materials and constructions</p>	<p>Addendum Ammunition types for special testing</p>	<p>VPAM AND #01 Version 1 Status: 12.06.2015</p>
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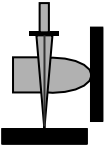
Introduction

In this addendum, ammunition types are specified that are not listed in the guideline VPAM – APR 2006, Table 1 (no. 4.1).

If necessary, the table can be extended. In this case, it is only the status of the document that is amended.

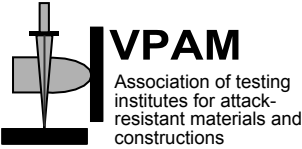
The test results cannot be compared with or equated to the test levels 1 to 10 of VPAM – APR 2006.

The bases for ballistic testing and/or conformity evaluations of materials, constructions and products that offer protection against attacks with firearms are described in the “General Test Guidelines for Ballistic Material, Construction and Product Testing”, VPAM – APR 2006.

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Standardisation of ammunition types for special testing

Ammunition types				Test conditions	
Calibre	Bullet			Firing distance [m]	Firing speed [m/s]
	Type	Nominal mass [g]	Manufacturer/Type		
Short gun					
7,62 x 25 Tokarev	FMJ/RN/SC	5,5	Made in Russia	5 ± 0,5	450 ± 10
7,62 x 25 Tokarev	FMJ/RN/FeC	5,5	Made in CZ	5 ± 0,5	530 ± 10
9 mm Makarov	FMJ/RN/FeC	6,0	Made in GDR	5 ± 0,5	350 ± 10
9 mm Luger	Ms/HP/PSP	6,1	DAG, Action 4	5 ± 0,5	460 ± 10
9 mm Luger	Cu/HP/PSP	6,0	MEN, QD-PEP II/s	5 ± 0,5	460 ± 10
9 mm Luger	FMJ/RN/SC	6,8	Vanäs, m39B	5 ± 0,5	420 ± 10
9 mm Luger	FMJ/RN/SC	8,0	PP41	5 ± 0,5	415 ± 10
9 mm Luger	Ms/HP/PSP	6,1	DAG, Action NP	5 ± 0,5	440 ± 10
9 mm Luger	FMs/RN	7,0	RUAG, Penetrator	5 ± 0,5	405 ± 10
4,6 x 30	FMJ/PB/SC	2,6	RUAG, SINTOX Ball	10 ± 0,5	600 ± 10
4,6 x 30	Cu/HP	2,0	RUAG, Action	10 ± 0,5	685 ± 10
4,6 x 30	Cu/PB/HC	2,0	RUAG, DM 11 (Penetrator)	10 ± 0,5	685 ± 10
5,7 x 28	FMJ/St/Alu	2,0	FNB	10 ± 0,5	700 ± 10
Long gun					
5,45 x 39	FMJ/PB/FeC	3,45	Made in Russia	10 ± 0,5	900 ± 10
5,56 x 45	FMJ/PB/SC ¹⁾	3,6	RUAG, M193	10 ± 0,5	980 ± 10
5,56 x 45	FMJ/PB/SC ¹⁾	3,6	MEN, M193	10 ± 0,5	1000 ± 10
5,56 x 45	FMJ/PB/SC ¹⁾	4,1	GP90	10 ± 0,5	950 ± 10
7,5 x 55	FMJ/PB/SC	11,3	GP11	10 ± 0,5	815 ± 10
.308 Win.	FMJ/PB/WC	8,4	Nammo AP8	10 ± 0,5	930 ± 10
.308 Win.	FMJ/PB/WC	12,7	RUAG Swiss P AP	10 ± 0,5	810 ± 10
.300 Win. Mag.	FMJ/PB/HC ²⁾	12,8	MEN	10 ± 0,5	855 ± 10
.30-06 Springf.	FMJ/PB/HC ²⁾	10,8	M2 AP	10 ± 0,5	870 ± 10
.338 Lapua Mag.	FMJ/PB/SC	16,2	Lapua	10 ± 0,5	870 ± 10
.338 Lapua Mag.	FMJ/PB/WC	16,2	Lapua	10 ± 0,5	870 ± 10
.338 Lapua Mag.	FMJ/PB/WC	16,8	RUAG, AP	10 ± 0,5	830 ± 10
.50 Browning	FMJ/PB/HC	45,5	CBC M2 AP	10 ± 0,5	860 ± 20
14,5 x 114	FMJ/PB/HCI	63,4	B32	10 ± 0,5	911 ± 20

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Shotgun					
12/70	Lead slug	31.0 ± 0.5	Brenneke	10 ± 0,5	420 ± 20
The rifling lengths are stated on the dimension sheets (TDCC) of C.I.P.					

Index of abbreviations used in the table

<p>FMJ Steel full jacket FeC Iron core SC Lead soft core SCP Lead soft core with steel penetrator HC Steel hard core WC Tungsten carbide RN Round head PB Pointed head FN Flat head HP Hollow-point bullet Cu Copper solid bullet FMs Full brass Tombac copper alloy PSp Plastic tip</p>	<p>C.I.P. Permanent International Commission for the Proof of Small Firearms TDCC Dimension sheets of C.I.P. CBC Companhia Brasileiro de Cartuchos DAG RUAG Ammotec, Germany RUAG RUAG AG, Switzerland FNB Fabrique Nationale, Belgium MEN Metallwerk Elisenhütte Nassau, Germany Speer Federal Cartridge Company, USA PP41 Pistol cartridge 41 (Pist Pat 41) GP90 Rifle cartridge 90 (Gw Pat 90) GP11 Rifle cartridge 11 (Gw Pat 11) 1) 2) Rifling length 178 mm ± 5% Rifling length 254 mm ± 5%</p>
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