CERTIFICATE

Certificate C14001

Company

Röchling Engineering Plastics KG
Röchlingstr. 1
49733 Haren, Germany

is hereby certified that the

material sample
Glastic Shield Grade 1717

passed the acceptance test (ballistic)
according to

UL 752, UL - Level 7 5.56 NATO
UL 752, UL - Level 8 7.62 NATO
SD - Rifle .223 5.56 NATO (Part 2)
SD - Rifle .30 7.62 NATO (Part 1)

.223 (5.56 mm), 55 grain FMJ @ 971 m/s ± 15 m/s
.30 (7.62 mm), 147 grain FMJ @ 838 m/s ± 15 m/s

This certificate is only valid with the following attachment.

Document number: C14001

Lichtenau, January 28th 2014

i.V. Dr. Engelbert Waßmuth
Vice President

i.V. Dr. Roger Schäfer
Head of Department

IABG is certified under ISO-9001:2000 - EN9100.
IABG is a member of several STANAG-Groups.
IABG is a member of the ToE of STANAG 4569

IABG

Attachment to Certificate C14001

Subject: Glastic Shield Grade 1717
Company: Röchling Engineering Plastics KG

general information	
test institute	IABG mbH Burghof 1, 33165 Lichtenau Germany
customer of IABG	Bavaria Armor Solutions Aufeldstr. 16, 82362 Weilheim i. OB Germany
manufacturer armoured glass	Röchling Engineering Plastics KG Röchlingstr. 1, 49733 Haren Germany
date of test protocol	September 10th 2013

Attachment to Certificate C14001

Subject: Glastic Shield Grade 1717
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target information	
sample 1	
sample type	Material
sample name	Glastic Shield Grade 1717
sample size	500 mm x 500 mm
sample thickness	38.6 mm
sample temperature	20°C

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test conditions	
test regulation	UL 752, UL - Level 7 5.56 NATO UL 752, UL - Level 8 7.62 NATO SD - Rifle .223 5.56 NATO (Part 2) SD - Rifle .30 7.62 NATO (Part 1)
ammunition velocity	.223 M193 (5.56 mm), 55 grain FMJ @ 971 m/s ± 15 m/s .30 M80 (7.62 mm), 147 grain FMJ @ 838 m/s ± 15 m/s
angle of testing	elevation: 0° Nato
firing range	IABG mbH Burghof 1, 33165 Lichtenau Germany
distance launcher to sample	15 metre
distance velocity measurement to target	1 to 2 metre
witness plate material	Aluminium alloy sheet
witness plate thickness	single layer 0.05 mm
witness plate standoff distance	150 mm to sample backing
ambient temperature at test	9-20°C
date of test	September 10th 2013
place of test	33165 Lichtenau, Germany

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Test results:

Sample: Glastic Shield Grade 1717

shot no.	ammo	elevation	shot formation / shot distance / shot position	velocity [m/s]	test results	
					sample backing	witness plate
21289	.223 M193 (5.56), 55 grain FMJ	0° Nato	triangle patterns / 35 mm / main area	996	NP, NS	WD
21290				989	NP, NS	WD
21291				989	NP, NS	WD
21292				994	NP, NS	WD
21293				1004	NP, NS	WD
21250	.30 M80 (7.62), 147 grain FMJ	0° Nato	triangle patterns / 35 mm / main area	840	NP, NS	WD
21251				828	NP, NS	WD
21252				834	NP, NS	WD
21253				838	NP, NS	WD
21254				843	NP, NS	WD

CP - complete penetration NP - no penetration WD - without damage BWOC - bulge without crack CBWL - cracked bulge with transmittance RB - retained bullet CBWL - cracked bulge with transmittance NS - no splinters S - splinters	NP - no penetration WD - without damage CBWOT - cracked bulge without transmittance CBWT - cracked bulge with transmittance S - splinters C - cracks
Total number of shots: 10	