

Certificate C14002

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 2 and Level 3 (Part 2)
NIJ 01108.01, Armor Type II and Type III-A

.357 Magnum, 158 grain JSP @ 425 m/s \pm 15 m/s
.44 Magnum, 240 grain SWC @ 426 m/s \pm 15 m/s

This certificate is only valid with the following attachment.

Document number: C14002

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 C14002

Subject:
Company:

Glastic Shield Grade 1717
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 3 th 2013

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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	12.1 mm
sample temperature	20°C

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test conditions	
test regulation	UL 752, UL - Level 2 (Part 2) UL 752, UL - Level 3 (Part 3) NIJ 01108.01, Armor Type II NIJ 01108.01, Armor Type III-A
ammunition velocity	.357 Magnum, 158 grain JSP @ 425 m/s \pm 15 m/s .44 Magnum, 240 grain SWC @ 426 m/s \pm 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	9-22°C
date of test	September 3 th 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
21250		0° Nato	triangle patterns / 35 mm / main area	457	BWOC, NS	WD
21256				436	NP, NS	WD
21257				421	NP, NS	WD
21258				437	NP, NS	WD
21259				441	NP, NS	WD
21260				451	NP, NS	WD
21261				439	NP, S	WD
21272		0° Nato	triangle patterns / 35 mm / main area	418	BWOC, S	WD
21273				421	BWOC, S	WD
21274				422	BWOC, S	WD
21275				421	BWOC, S	WD
21276				425	BWOC, S	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: 12						