



BALLISTIC PROTECTIVE PRODUCTS

LEVEL IIA

LEVEL II

LEVEL IIIA

LEVEL III

LEVEL IV

Throughout history, people have felt the need for protection in daily life and especially during war, and as a result, they have sought materials that can provide good protection. They have developed comfortable products that do not affect the user's mobility while providing protection.

Nowadays, while the lethality of bullets increases day by day, personal ballistic protective product technology also increases.

Our company produces and sells personal ballistic protective products with its experienced technical team.

In addition to ballistic protective vests that can be worn under and over shirts, it also produces personalized ballistic protective bags and ballistic packages that can be worn inside daily clothes.

It also produces Mine Clearance/Search Suits used in mine search and clearing activities.

PROTECTION LEVEL	CALIBER AND BULLET TYPE	BULLET WEIGHT (g)	BULLET SPEED (m/s)	TRAUMA DEPTH (max)
I (5 m)	22 LR long barrel lead nose bullets (LR, LRN)	2,6	320	44 mm
	380 ACP Full metal jacked nose bullets (FMJ RN)	6,2	312	
IIA (5 m)	9 mm Full metal jacket round tip bullet (FMJ RN)	8,0	332	44 mm
	40 S&W Full metal jacket nose bullet (FMJ)	11,7	312	
II (5 m)	9 mm Full metal jacket round tip bullet (FMJ RN)	8,0	358	44 mm
	357 Magnum, metal jacket soft point bullet (JSP)	10,2	427	
IIIA (5 m)	9 mm Full metal jacket round tip bullet (FMJ RN)	8,0	427	44 mm
	44 Magnum Coated pit (special hollow tip) point bullet (JHP)	15,6	427	
III (15 m)	7.62 mm Full metal jacket bullets (FMJ)	9,6	838	44 mm
IV (15 m)	30 mm armor-piercing (AP) bullet	10,8	869	44 mm

Protection levels for ballistic protectors specified in the NIJ-STD-0101.04 standard

PROTECTION LEVEL	CALIBER AND BULLET TYPE	BULLET WEIGHT (g)	BULLET SPEED (m/s)	TRAUMA DEPTH (max)
IIA (5 m)	9 mm Full metal jacket round tip bullet (FMJ RN)	8,0	373±9,1	44 mm
	40 S&W Full metal jacket nose bullet (FMJ)	11,7	352±9,1	
II (5 m)	9 mm Full metal jacket round tip bullet (FMJ RN)	8,0	398±9,1	44 mm
	357 Magnum, metal jacket soft point bullet (JSP)	10,2	436±9,1	
IIIA (5 m)	357 SIG Full metal jacket round tip bullet (FMJ RN)	8,0	448±9,1	44 mm
	44 Magnum (semi jacketed hollow point) (SJHP)	15,6	436±9,1	
III (15 m)	7.62 mm Full metal jacket bullets (FMJ)	9,6	847±9,1	44 mm
IV (15 m)	30 mm armor-piercing (AP) bullet	10,8	878±9,1	44 mm

Protection levels for ballistic protectors specified in the NIJ-STD-0101.06 standard

Ballistic Protective Vest (Undershirt) General Features	
Feature	Explanation
Model	Undershirt
Outer Fabric Color	White, black or any desired color
Standard	NIJ 0101.04
Protection Level	Level IIA
Protection Capacity	• 9 mm Full metal jacket round tip bullet (FMJ RN) 8,0 g 332 m/s $\pm$ 9,1 m/s • 40 S&W Full metal jacket nose bullet (FMJ) 11,7 g 312 m/s $\pm$ 9,1 m/s
Sizes	S-M-L-XL-XXL (5 standard sizes)
Weight	<2,0 kg
Terms of Use	-35 °C / +55 °C
Shelf Life	10 years



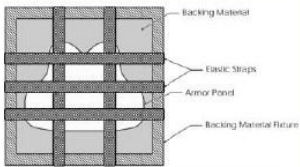
Ballistic Protective Vest (Undershirt) General Features	
Feature	Explanation
Model	Undershirt
Outer Fabric Color	White, black or any desired color
Standard	NIJ 0101.04
Protection Level	Level II
Protection Capacity	• 9 mm Full metal jacket round tip bullet (FMJ RN) 8,0 g 358 m/s $\pm$ 9,1 m/s • 357 Magnum, metal jacket soft point bullet (JSP) 10,2 g 427 m/s $\pm$ 9,1 m/s
Sizes	S-M-L-XL-XXL (5 standard sizes)
Weight	<3,0 kg
Terms of Use	-35 °C / +55 °C
Shelf Life	10 years



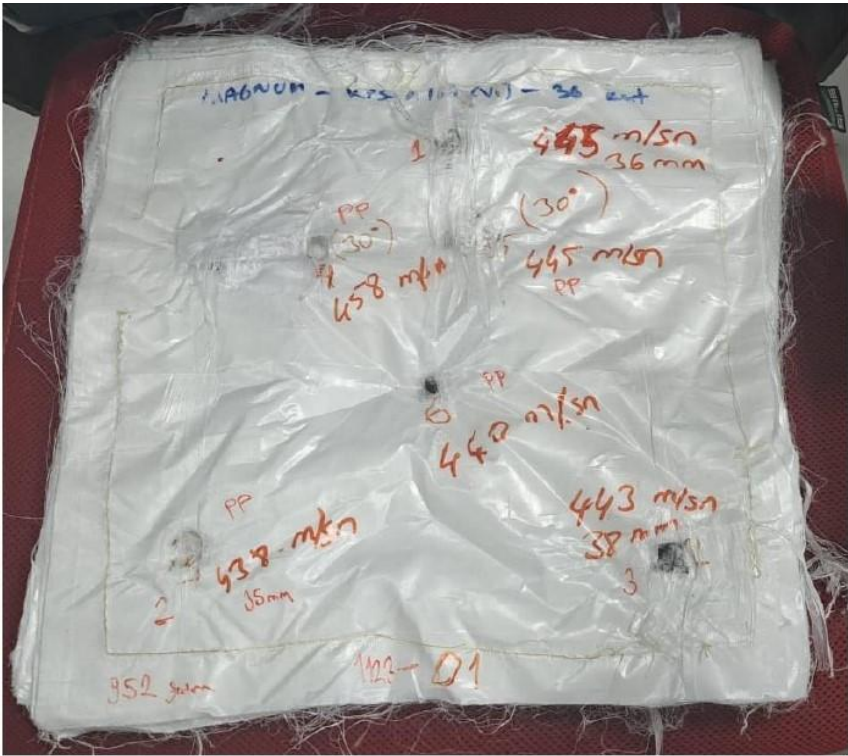
Ballistic Protective Vest (Overshirt) General Features	
Feature	Explanation
Model	Overshirt
Protection Areas	Standard model: Front and back Full protection model: Front, back, shoulder, arm and crotch
Outer Fabric Color	White, black or any desired color
Standard	NIJ 0101.04
Protection Level	Level IIIA
Protection Capacity	9 mm Full metal jacket round tip bullet (FMJ RN) 8,0 g 427 m/s $\pm$ 9,1 m/s 44 Magnum Coated pit (special hollow tip) point bullet (JHP) 15,6 g 427 m/s $\pm$ 9,1 m/s
Sizes	M-L-XL (3 standard sizes)
Weight	<5,5 kg
Terms of Use	-35 °C / +55 °C
Shelf Life	10 years



Test Equipment			Backing Material						
Shot Distance (m)	5		Name				Temperature		
Velocity Reading Distance (m)	2,5		Roma Plastina				38,4		
Barrel / Gun	.44 Magnum	SJHP	Results of Drop Test						
Bullet Weight/Gunpowder Amount (gn)	240 grain	7,48 grain	19,95	20,05	20,12	20,08	19,9	Average	20,02

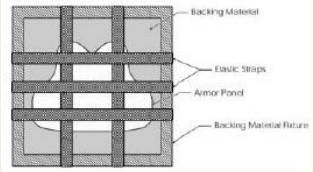
Shot No	Velocity (m/s)		Deformation (mm)	Penetration (CP-PP)	Note	Strapping Methods
1	445,2	445,1	36	PP		
2	438,6	438,5	35	PP		
3	443,1	443,1	38	PP		
4	458,2	458,1		PP	30° angle (High Velocity)	
5	445,3	445,2		PP	30° angle	
6	440,4	440,3		PP		

DESCRIPTION	NOTES
	CP: Complete Penetration PP: Partial Penetration Velocity : 436 ± 9,1 m/s

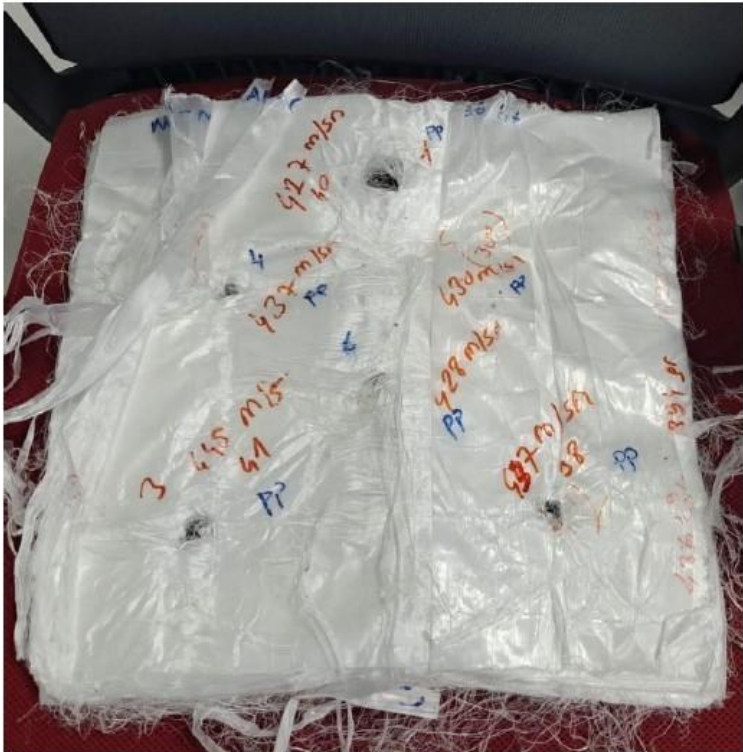


Ballistic package weight: 5.750 g/m² (36 layers/160 g/m²) (NIJ 0101.04)

Test Equipment			Backing Material						
Shot Distance (m)	5		Name				Temperature		
Velocity Reading Distance (m)	2,5		Roma Plastina				38,4		
Barrel / Gun	.44 Magnum	SJHP	Results of Drop Test						
Bullet Weight/Gunpowder Amount (gn)	240 grain	7,48 grain	19,95	20,05	20,12	20,08	19,9	Average	20,02

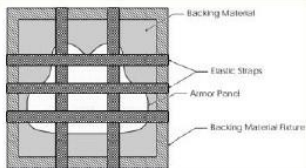
Shot No	Velocity (m/s)		Deformation (mm)	Penetration (CP-PP)	Note	
1	432,6	432,5	40	PP		
2	445,3	445,2	41	PP		
3	437,5	437,4	38	PP		
4	437,1	437,0		PP	30° angle	
5	430,5	430,4		PP	30° angle	
6	428,6	428,5		PP		

DESCRIPTION	NOTES
	CP: Complete Penetration PP: Partial Penetration Velocity : 436 ± 9,1 m/s

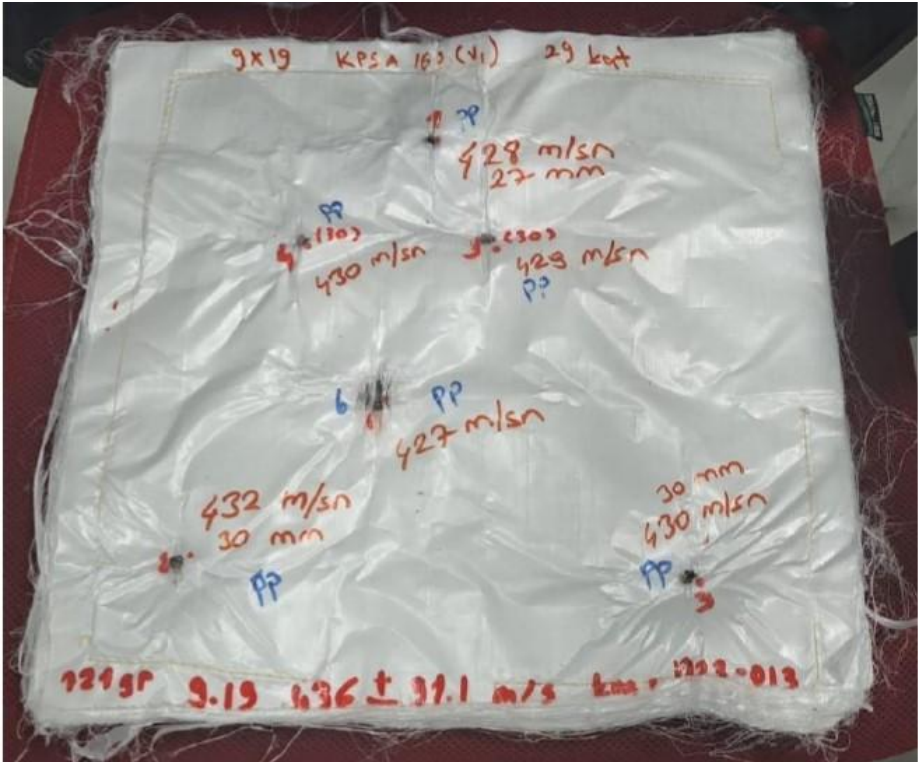


Ballistic package weight: 5.750 g/m² (36 layers/160 g/m²) (NIJ 0101.04)

Test Equipment				Backing Material						
Shot Distance (m)		5		Name			Temperature			
Velocity Reading Distance (m)		2,5		Roma Plastina			39,2			
Barrel / Gun		9x19mm	FMJ RN	Results of Drop Test						
Bullet Weight/Gunpowder Amount (gn)		124 grain	6,63 grain	20,05	20,16	20,12	19,95	20,72	Average	20,2

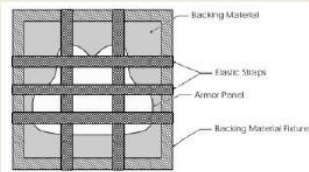
Shot No	Velocity (m/s)		Deformation (mm)	Penetration (CP-PP)	Note	Strapping Methods
1	428,6	428,5	27	PP		
2	432,9	432,8	30	PP		
3	430,4	430,3	30	PP		
4	430,6	430,4		PP	30 ⁰ angle	
5	429,5	429,3		PP	30 ⁰ angle	
6	427,4	427,3		PP		

DESCRIPTION	NOTES
	CP: Complete Penetration PP: Partial Penetration Velocity : 436 ± 9,1 m/s

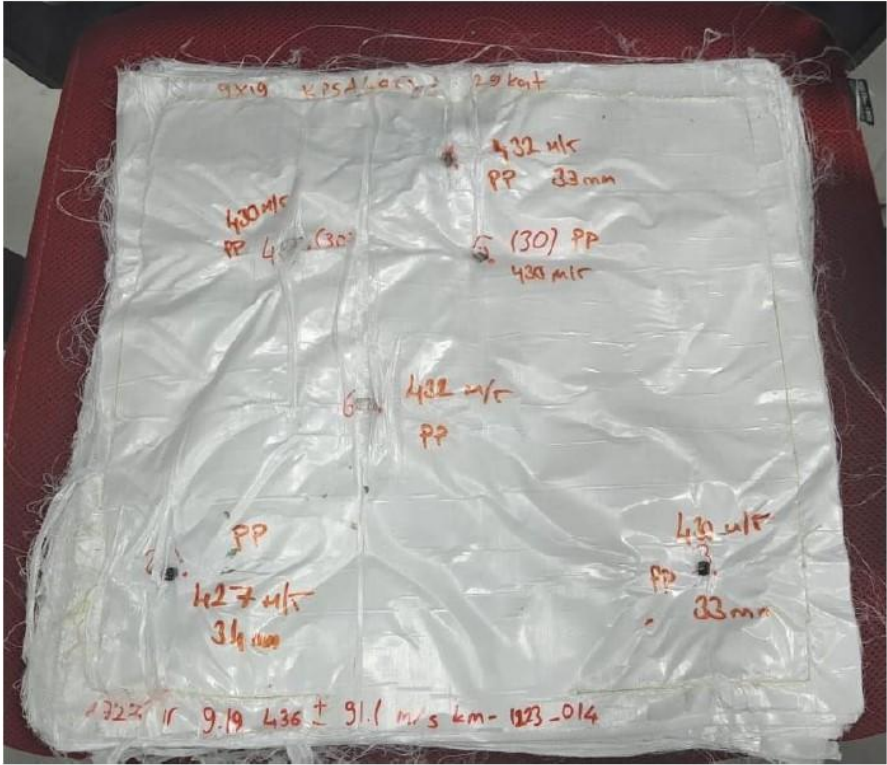


Ballistic package weight: 4.650 g/m² (29 layers/160 g/m²) (NIJ 0101.04)

Test Equipment				Backing Material						
Shot Distance (m)		5		Name				Temperature		
Velocity Reading Distance (m)		2,5		Roma Plastina				39,2		
Barrel / Gun		9x19mm	FMJ RN	Results of Drop Test						
Bullet Weight/Gunpowder Amount (gn)		124 grain	6,63 grain	20,05	20,16	20,12	19,95	20,72	Average	20,2

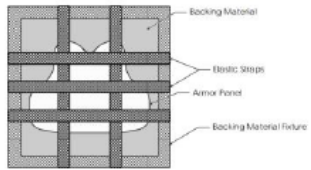
Shot No	Velocity (m/s)		Deformation (mm)	Penetration (CP-PP)	Note	Strapping Methods
1	432,5	432,4	33	PP		
2	427,6	427,5	34	PP		
3	430,6	430,4	33	PP		
4	430,4	430,3		PP	30 ⁰ angle	
5	430,8	430,7		PP	30 ⁰ angle	
6	432,1	432,0		PP		

DESCRIPTION	NOTES
	CP: Complete Penetration PP: Partial Penetration Velocity : 436 ± 9,1 m/s

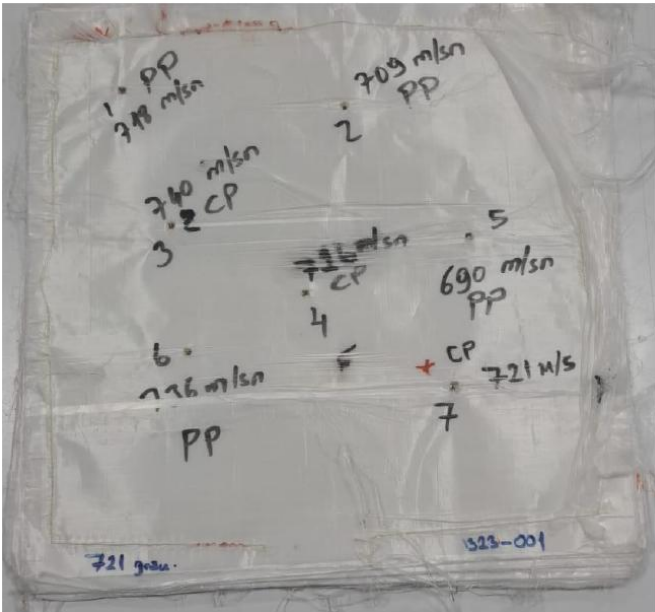


Ballistic package weight: 4.650 g/m² (29 layers/160 g/m²) (NIJ 0101.04)

Test Equipment			Backing Material						
Shot Distance (m)	10		Name				Temperature		
Velocity Reading Distance (m)	2,5		Roma Plastina				37,5		
Barrel / Gun	5,56x45	.22 CALIBRE	Results of Drop Test						
Bullet Weight/Gunpowder Amount (gn)	17 grain	-	19,80	20,12	20,30	19,95	20,36	Average	20,11

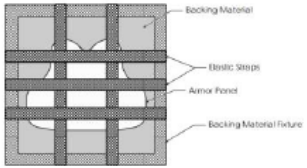
Shot No	Velocity (m/s)		Deformation (mm)	Penetration (CP-PP)	Note	
1	718,5	718,4	-	PP		
2	709,2	709,1	-	PP		
3	740,3	740,2	-	CP		
4	716,3	716,2	-	CP		
5	690,1	690,0	-	PP		
6	736,5	736,4	-	PP		
7	721,2	721,2	-	CP		
8						
9						
10						
11						

DESCRIPTION	NOTES
For V50 calculation, Shot 1,2,3,4,6,7 were taken. V50 = 723,6 m/s	CP: Complete Penetration PP: Partial Penetration

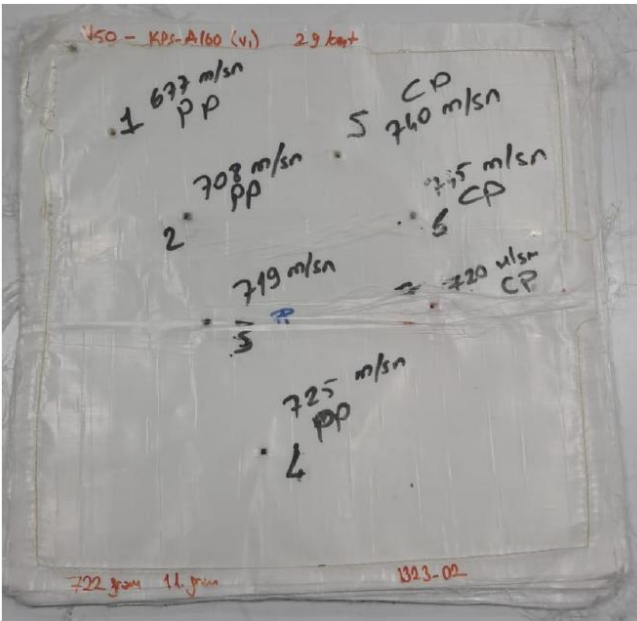


Ballistic package weight: 4.650 g/m² (29 layers/160 g/m²) (STANAG 2920, V50)

Test Equipment			Backing Material						
Shot Distance (m)	10		Name				Temperature		
Velocity Reading Distance (m)	2,5		Roma Plastina				37,5		
Barrel / Gun	5,56x45	.22 CALIBRE	Results of Drop Test						
Bullet Weight/Gunpowder Amount (gn)	17 grain	-	19,80	20,12	20,30	19,95	20,36	Average	20,11

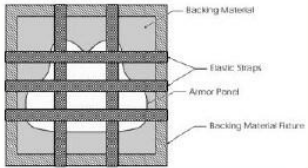
Shot No	Velocity (m/s)		Deformation (mm)	Penetration (CP-PP)	Note	Strapping Methods
1	677,3	677,2	-	PP		
2	708,6	708,5	-	PP		
3	719,1	719,0	-	PP		
4	725,2	725,1	-	PP		
5	740,5	740,4	-	CP		
6	745,1	745,1	-	CP		
7	720,3	720,3	-	CP		
8						
9						
10						
11						

DESCRIPTION	NOTES
For V50 calculation, Shot 2,3,4,5,6,7 were taken. V50 = 726,5 m/s	CP: Complete Penetration PP: Partial Penetration



Ballistic package weight: 4.650 g/m² (29 layers/160 g/m²) (STANAG 2920, V50)

Test Equipment			Backing Material						
Shot Distance (m)	5		Name			Temperature			
Velocity Reading Distance (m)	2,5		Roma Plastina			39,2			
Barrel / Gun	9x19mm	FMJ RN	Results of Drop Test						
Bullet Weight/Gunpowder Amount (gn)	124 grain	6,63 grain	20,05	20,16	20,12	19,95	20,72	Average	20,2

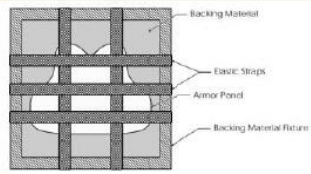
Shot No	Velocity (m/s)		Deformation (mm)	Penetration (CP-PP)	Note	Strapping Methods
1	449,1	449,0	36	PP	(High Velocity)	
2	455,0	455,0	33	PP	(High Velocity)	
3	453,2	453,1	34	PP	(High Velocity)	
4	441,2	441,1		PP	30° angle	
5	446,3	446,2		PP	30° angle	
6	444,2	444,1		PP		

DESCRIPTION	NOTES
	CP: Complete Penetration PP: Partial Penetration Velocity : 436 ± 9,1 m/s

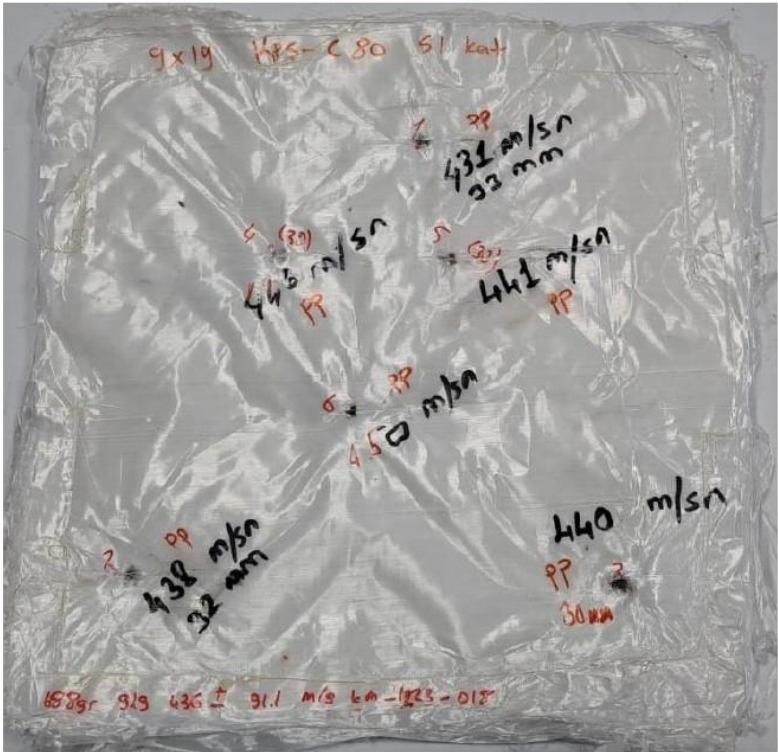


Ballistic package weight: 4.080 g/m² (51 layers/80 g/m²) (NIJ 0101.04)

Test Equipment			Backing Material						
Shot Distance (m)	5		Name				Temperature		
Velocity Reading Distance (m)	2,5		Roma Plastina				39,2		
Barrel / Gun	9x19mm	FMJ RN	Results of Drop Test						
Bullet Weight/Gunpowder Amount (gn)	124 grain	6,63 grain	20,05	20,16	20,12	19,95	20,72	Average	20,2

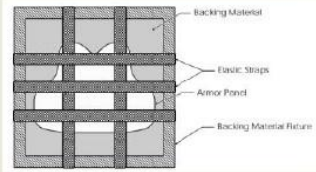
Shot No	Velocity (m/s)		Deformation (mm)	Penetration (CP-PP)	Note	
1	431,3	431,2	33	PP		
2	438,6	438,5	32	PP		
3	440,2	440,2	30	PP		
4	446,5	446,4		PP	30° angle (High Velocity)	
5	441,3	441,0		PP	30° angle	
6	450,1	450,1		PP	(High Velocity)	

DESCRIPTION	NOTES
	CP: Complete Penetration PP: Partial Penetration Velocity : 436 ± 9,1 m/s

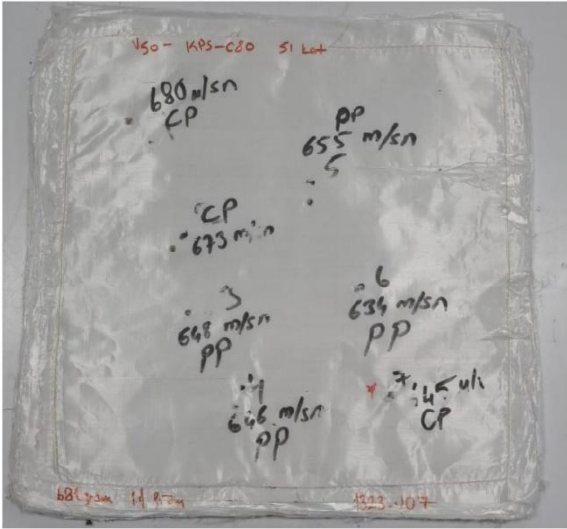


Ballistic package weight: 4.080 g/m² (51 layers/80 g/m²) (NIJ 0101.04)

Test Equipment			Backing Material						
Shot Distance (m)	10		Name			Temperature			
Velocity Reading Distance (m)	2,5		Roma Plastina			37,5			
Barrel / Gun	5,56x45	.22 CALIBRE	Results of Drop Test						
Bullet Weight/Gunpowder Amount (gn)	17 grain	-	19,80	20,12	20,30	19,95	20,36	Average	20,11

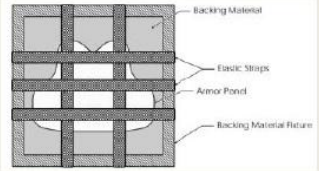
Shot No	Velocity (m/s)		Deformation (mm)	Penetration (CP-PP)	Note	Strapping Methods
1	680,6	680,6	-	CP		
2	673,1	673,1	-	CP		
3	648,8	648,7	-	PP		
4	646,9	646,9	-	PP		
5	655,2	655,2	-	PP		
6	634,3	634,2	-	PP		
7	645,8	645,7	-	CP		
8						
9						
10						
11						

DESCRIPTION	NOTES
For V50 calculation, Shot 1,2,3,4,5,7 were taken. V50 = 658,4 m/s	CP: Complete Penetration PP: Partial Penetration

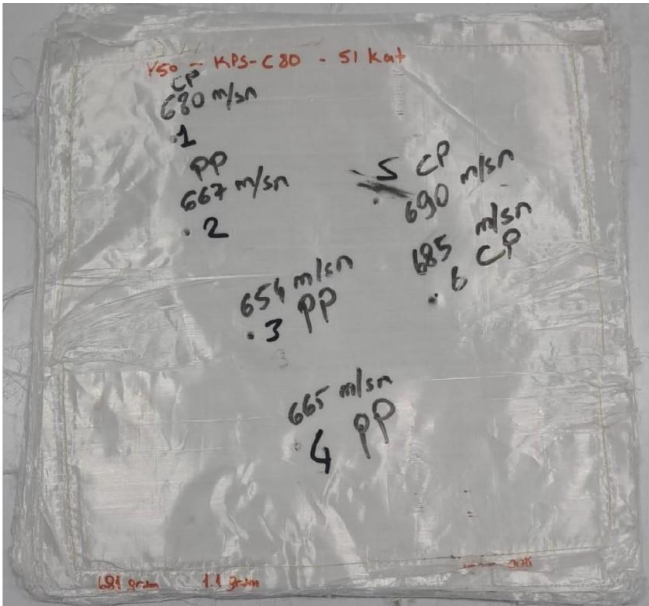


Ballistic package weight: 4.080 g/m² (51 layers/80 g/m²) (STANAG 2920, V50)

Test Equipment			Backing Material						
Shot Distance (m)	10		Name			Temperature			
Velocity Reading Distance (m)	2,5		Roma Plastina			37,5			
Barrel / Gun	5,56x45	.22 CALIBRE	Results of Drop Test						
Bullet Weight/Gunpowder Amount (gn)	17 grain	-	19,80	20,12	20,30	19,95	20,36	Average	20,11

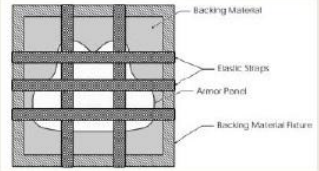
Shot No	Velocity (m/s)		Deformation (mm)	Penetration (CP-PP)	Note	Strapping Methods 
1	680,3	680,2	-	CP		
2	667,2	667,1	-	PP		
3	654,9	654,9	-	PP		
4	665,1	665,1	-	PP		
5	690,5	690,4	-	CP		
6	685,9	685,8	-	CP		
7						
8						
9						
10						
11						

DESCRIPTION	NOTES
For V50 calculation, Shot 1,2,3,4,5,6 were taken. V50 = 673,9 m/s	CP: Complete Penetration PP: Partial Penetration

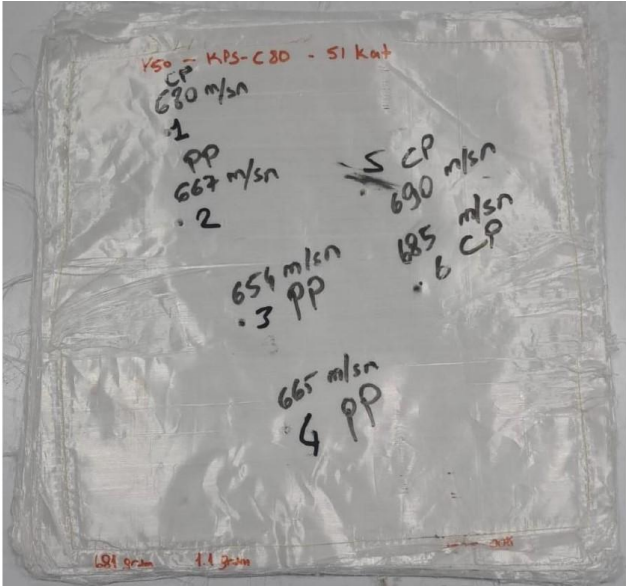


Ballistic package weight: 4.080 g/m² (51 layers/80 g/m²) (STANAG 2920, V50)

Test Equipment			Backing Material						
Shot Distance (m)	10		Name			Temperature			
Velocity Reading Distance (m)	2,5		Roma Plastina			37,5			
Barrel / Gun	5,56x45	.22 CALIBRE	Results of Drop Test						
Bullet Weight/Gunpowder Amount (gn)	17 grain	-	19,80	20,12	20,30	19,95	20,36	Average	20,11

Shot No	Velocity (m/s)		Deformation (mm)	Penetration (CP-PP)	Note	
1	680,3	680,2	-	CP		
2	667,2	667,1	-	PP		
3	654,9	654,9	-	PP		
4	665,1	665,1	-	PP		
5	690,5	690,4	-	CP		
6	685,9	685,8	-	CP		
7						
8						
9						
10						
11						

DESCRIPTION	NOTES
For V50 calculation, Shot 1,2,3,4,5,6 were taken. V50 = 673,9 m/s	CP: Complete Penetration PP: Partial Penetration



Ballistic package weight: 4.080 g/m² (51 layers/80 g/m²) (STANAG 2920, V50)

Mine Clearance Suit General Features	
Feature	Explanation
Outer Fabric Color	Green, Olive Green, Navy Blue, Black, Beige, ...
Standard	STANAG 2920
Protection Level	>450 m/s (1.102 g)
Sizes	M-L-XL (3 standard sizes)
Weight	<7,2 kg
Terms of Use	-35 °C / +55 °C
Shelf Life	10 years

