



## Armour Plates

### **Model 250 – Level IIIA – High Velocity Handguns including 7.62 x 25 FMJ (Tokarev)**

SANS 1658:2007 Level IIIA Stand Alone Armoured Plate

44 Mag SJHP 438m/s & 9mm FMJ 444 m/s

7.62 x 25 FMJ (Tokarev) 438m/s

Estimated Weight 1.6kg per plate

Identification – Brown Plate

### **Model 400 – Level IIIA Including AK47 – AK47 7.62 x 39**

SANS 1658:2007 Level IIIA Incl AK47 Stand Alone Armoured Plate

Stand Alone Hard Armor

7.62 x 39 FMJ 758m/s

And all lesser threats

Estimated Weight 2.4 kg

Identification – Blue Plate

### **Model 600 – Level III – R1 – R4 – LM4 – AK47**

SANS 1658:2007 Level III SA Mix Stand Alone Armoured Plate

7.62 x 51 FMJ (R1) 862 m/s

7.62 x 39 FMJ (AK47) 710 m /s

5.56 x 45 FMJ (R4, LM4) 955 m/s

Estimated Weight 3.4kg

Identification – Red Plate

### **Level IV – Ceramic/Aramid Level IV Stand Alone – 7.62 x 63 API Single Shot**

NIJ0101.03 Level IV Stand Alone Armour

7.62 x 63 AP (30.06) – Single Shot

7.62 x 51 Ball (R1) – Multi Shot

7.62 x 39 API (AK47) – Multi Shot

7.62 x 39 Ball (AK47) – Multi Shot

5.56 x 45 Ball (M-193 & SS-109), (R4, R5) – Multi Shot

Estimated Weight 3.8 kg per plate

Black Plate Marked LEVEL IV



## UNDERSTANDING BALLISTICS

A ballistic vest or bullet-resistant vest, often called a bulletproof vest, is an item of P that helps absorb the impact and reduce or stop penetration to the body from firearm-fired projectiles, and is worn on the torso. Soft vests are made of many layers of woven or laminated fibres and can protect the wearer from small calibre handgun projectiles.

These vests often have a ballistic plate inserted into the vest. Metal or ceramic plates can be used with a soft vest, providing additional protection against rifle rounds, and metallic components or tightly woven fibre layers can give soft armour resistance to stab and slash attacks from knives and similar close-quarter weapons.

Ballistic vests use layers of very strong fibres to "catch" and deform a bullet, mushrooming it into a dish shape, and spreading its force over a larger portion of the vest fibre. The vest absorbs the energy from the deforming bullet, bringing it to a stop before it can completely penetrate the textile matrix. Some layers may be penetrated but as the bullet deforms, the energy is absorbed by a larger and larger fibre area.

While a vest can prevent bullet penetration, the vest and wearer still absorb the bullet's impulse. Even without penetration, heavy bullets deal enough force to cause blunt force trauma under the impact point. Vest specifications will typically include both penetration resistance requirements and limits on the amount of impact force that is delivered to the body.

On the other side, some bullets can penetrate the vest, but still deal low damage to its wearer because of speed loss or their small mass/form.

Vests designed for bullets offer less protection against blows from sharp implements, such as knives, arrows or ice picks, or from bullets manufactured with hardened materials, e.g., those containing a steel core instead of lead. This is because the impact force of these objects stays concentrated in a relatively small area, allowing them a better likelihood of puncturing the fibre layers of most bullet-resistant fabrics used in soft armor. By contrast, stab vests provide better protection against sharp implements, but are generally less effective against bullets. However, some soft armor can still protect against most slashing attacks.

Textile vests may be augmented with metal (steel or titanium), ceramic or polyethylene plates that provide extra protection to vital areas. These hard armour plates have proven effective against all handgun bullets and a range of rifles. These upgraded ballistic vests have become standard in military use, as soft body armour vests are ineffective against military rifle rounds. Prison guards often wear vests which are designed specifically against bladed weapons and sharp objects. These vests may incorporate coated and laminated para-aramid textiles or metallic components.



Outer Cover



Soft Aramid Armour



Hard Armour Plates

**PLEASE NOTE YOUR OUTER COVER OFFERS NO BALLISTIC PROTECTION.**

**THE PROTECTION IS OFFERED IN EITHER THE SOFT OR HARDARMOUR INSERTS.**



### WHAT ARE NIJ COMPLIANT ARMORS TESTED AGAINST?




#### EXISTING LEVELS OF PROTECTION

<p><b>Level IIA</b> Tested to stop 9mm and .40 S&amp;W ammunition fired from short barrel handguns. No rifle ammunition protection.</p> <p><b>Level II</b> Tested to stop 9mm and .357 Magnum ammunition fired from short barrel handguns. No rifle ammunition protection.</p>	<p><b>Level IIIA</b> Tested to stop .357 SIG and .44 Magnum ammunition fired from longer barrel handguns. No rifle ammunition protection.</p> <p><b>Level III</b> Tested to stop 7.62mm FMJ lead core rifle ammunition.</p> <p><b>Level IV</b> Tested to stop .30cal steel core armor piercing rifle ammunition.</p>
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1	2	3	4	5	6	7	8	9	10
Test Variables							Performance Requirements		
Armour Type	Test Round	Test Bullet	Bullet Weight (+/- 2%)	Reference Velocity (+/- 9 m/s)	Range (+/- 0.025m)	Hits Per Armour Part at 30 Angle	Hits Per Armour Part at 0Degree Angle	Shots Per Panel	BFS Depth Maximum
II	1	9mm FMJ RN	8.0g 124gr	367m/s	5m	2	4	6	44mm or Less PASS
	2	357 Mag JSP	10.2g 158gr	436m/s	5m	2	4	6	44mm or Less PASS
IIIA	1	9mm HV FMJ RN	8.0g 124gr	436m/s	5m	2	4	6	44mm or Less PASS
	2	44 Mag SJHP	15.6g 240gr	436m/s	5m	2	4	6	44mm or Less PASS
IIIA Special Tokarev	1	7.62mm Tokarev FMJ	5.5g 85gr	450m/s	5m	2	4	6	44mm or Less PASS
IIIA Special 7.62 x 39	1	7.62 x 39	123gr	710m/s	10m	1	3	4	44mm or Less PASS
III	1	7.62 x 51mm FMJ	9.6g 148gr	847m/s	15m	0	6	6	44mm or Less PASS
III Special SA Mix EXCLUDING API	1	7.62 x 51 FMJ	143gr	862m/s	15m	0	1	5	44mm or Less PASS
	1	7.62 x 39 FMJ	123gr	710m/s	15m	0	1	5	44mm or Less PASS
	1	5.56 x 45 FMJ	55gr	955m/s	15m	0	1	5	44mm or Less PASS
IV	1	7.62 x 63 M2 AP	10.8 g 166gr	878m/s	15m	0	1	1	44mm or Less PASS