

**NIJ**  
NATIONAL  
INSTITUTE  
of JUSTICE



**ARMOR LEVEL AND THREAT COMPARISON**

|             | 0101.04                | 0101.06                | 0101.04                | 0101.06                | 0101.04                   | 0101.06                   | 0101.06 (Conditioned)     |
|-------------|------------------------|------------------------|------------------------|------------------------|---------------------------|---------------------------|---------------------------|
| Armor Type  | Test Bullet            | Test Bullet            | Bullet Weight (grains) | Bullet Weight (grains) | Reference Velocity (ft/s) | Reference Velocity (ft/s) | Reference Velocity (ft/s) |
| <b>I</b>    | .22 caliber LR LRN     | N/A                    | 30                     | N/A                    | 1080                      | N/A                       | N/A                       |
|             | .380 ACP FMJ RN        | N/A                    | 90                     | N/A                    | 1055                      | N/A                       | N/A                       |
| <b>IIA</b>  | 9 mm FMJ RN            | 9 mm FMJ RN            | 124                    | 124                    | 1120                      | 1225                      | 1165                      |
|             | 40 S&W FMJ             | 40 S&W FMJ             | 180                    | 180                    | 1055                      | 1155                      | 1065                      |
| <b>II</b>   | 9 mm FMJ RN            | 9 mm FMJ RN            | 124                    | 124                    | 1205                      | 1305                      | 1245                      |
|             | .357 Mag JSP           | .357 Mag JSP           | 158                    | 158                    | 1430                      | -                         | 1340                      |
| <b>IIIA</b> | 9 mm FMJ RN            | .357 Mag FMJ FN        | 127                    | 125                    | 1430                      | 1470                      | 1410                      |
|             | .44 Mag JHP            | .44 Mag SJHP           | 240                    | 240                    | 1430                      | 1430                      | 1340                      |
| <b>III</b>  | 7.62 mm NATO FMJ (M80) | 7.62 mm NATO FMJ (M80) | 148                    | 147                    | 2780                      | -                         | 2780                      |
| <b>IV</b>   | .30 Caliber M2 AP      | .30 Caliber M2 AP      | 166                    | 166                    | 2880                      | -                         | 2880                      |

**Acronyms / Abbreviations**

|     |                       |      |                                    |
|-----|-----------------------|------|------------------------------------|
| AP  | Armor Piercing        | LR   | Long Rifle                         |
| FMJ | Full Metal Jacket     | LRN  | Lead Round Nose                    |
| FN  | Flat Nose             | NATO | North Atlantic Treaty Organization |
| JHP | Jacketed Hollow Point | RN   | Round Nose                         |
| JSP | Jacketed Soft Point   | SIG  | Sig Sauer                          |



**NIJ STAB RESISTANT PROTECTION LEVEL STRIKE ENERGIES**

| Protection Level | "E1" Strike Energy |             | "E2" Overtest Strike Energy |             |
|------------------|--------------------|-------------|-----------------------------|-------------|
|                  | J                  | ft· lbf     | J                           | ft· lbf     |
| SPIKE 1          | 24 ± 0.50          | 17.7 ± 0.36 | 36 ± 0.60                   | 26.6 ± 0.44 |
| SPIKE 2          | 33 ± 0.60          | 24.3 ± 0.44 | 50 ± 0.70                   | 36.9 ± 0.51 |
| SPIKE 3          | 43 ± 0.60          | 31.7 ± 0.44 | 65 ± 0.80                   | 47.9 ± 0.59 |



**SOFT ARMOR**



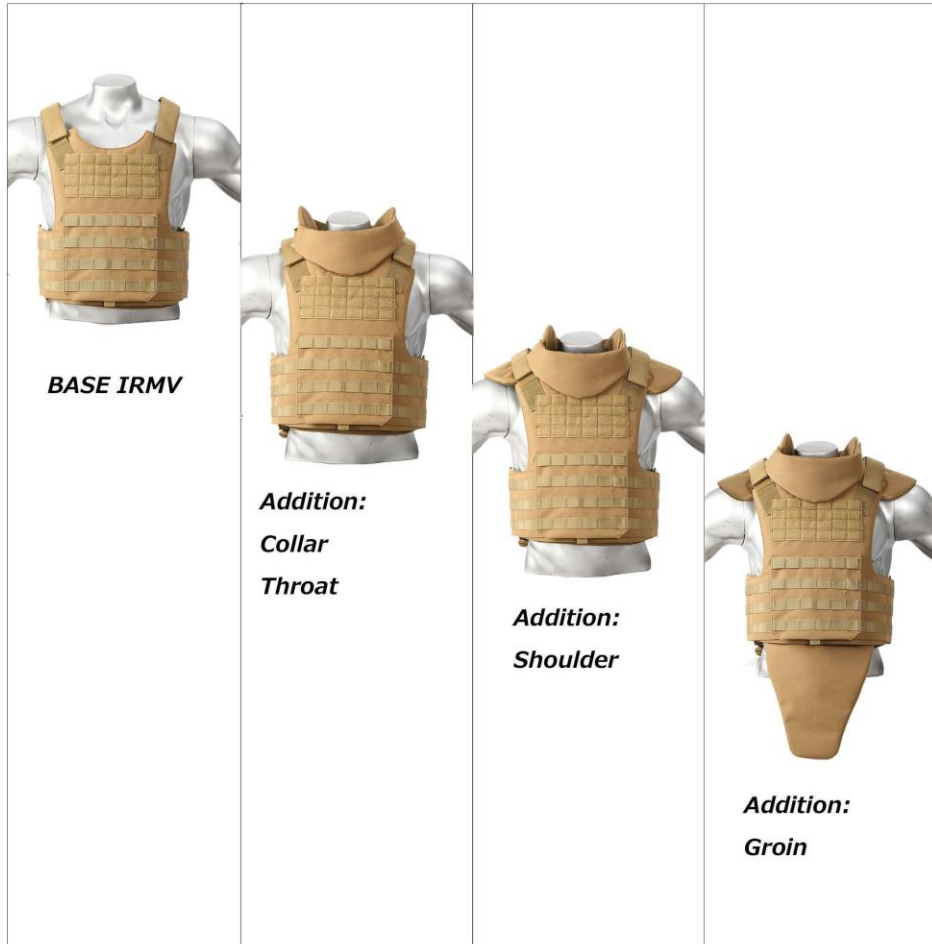
**RIFLE ARMOR**



**OUTTER FABRIC**

|                      |   |
|----------------------|---|
| <b>SOFT ARMOR</b>    | <p>Helps absorb the impact from firearm projectiles and fragmentations.</p> <p>Options: BulletProof ; Stab Resistant ; BulletProof &amp; Stab Resistant ;</p> <p>Level: NIJ I; IIA; II; IIIA ;</p> <p>Spike1 ; Spike 2;</p>   |
| <b>RIFLE ARMOR</b>   | <p>Provides additional protection from rifle rounds.</p> <p>Level: NIJ IIIA ; NIJ III; NIJ IV;</p>  |
| <b>OUTTER FABRIC</b> | <p>Increases ballistic capability of the nylon carrier, provides structure, increases abrasion resistance, improves fire resistance and increases Soldier survivability.</p> <p>Options: Fire resistance;</p> <p>Material: Nylon 6 construction; Durable Nylon 6.6 construction;</p> <p>500D Cordura; 1000D Cordura;</p> <p>500D Nylon; 900D Nylon; 1000D Nylon</p> <p>600D Polyester; 900D Polyester; 1000D Polyester;</p> |





**Addition:  
Front & Rear  
Collar; Throat; Shoulder; Groin; Arm;**



## **IA-ARC**

**Iron Armadillo-Adaptive Response Carrier**

*Fully adaptive design.*

*Removable additional protection armor.*

*Design for both BALCS soft armor , SAPIs and variety of armor plates.*

*Front chest Velcro.*

*A variety of colors can be chosen.*

*Ergonomics.*

*Easy for installation*

**Color:**

|               |                 |               |
|---------------|-----------------|---------------|
| <b>BLACK</b>  | <b>Khaki</b>    | <b>Coyote</b> |
| <b>Ranger</b> | <b>OD Green</b> | <b>CAMO</b>   |



**IA-LEMC (Iron Armadillo-Law Enforcement Molle Carrier)**

**Additional:**

Tactical Molle Belt can be purchased separately.

Tactical Molle Belt can be purchased separately.

Chest badge/patches placeholder and radio reserved space.

Will fit both BALCS soft armor and SAPIs.

Shoulder wire linear

Tactical Molle Belt can be purchased separately.

Size : SM, MED, LG, XL

Color: Black.



**IA-LETC (Iron Armadillo-Law Enforcement Tactical Carrier)**

**Additional:**

Tactical Molle Belt can be purchased separately.

One Piece Design (LETC).

Combined with rifle magazine pouches, pistol magazine pouches, radio pouches, Baton/flashlight pouches, admin pouches (LETC).

Additional Rifle magazine pouches, pistol magazine pouches, radio pouches, Baton/flashlight pouches, admin pouches (LEMC).

Tactical Molle Belt can be purchased separately.

Chest badge/patches placeholder and radio reserved space.

Will fit both BALCS soft armor and SAPIs.

Shoulder wire linear

Tactical Molle Belt can be purchased separately.

Size : SM, MED, LG, XL

Color: Black.



## IA-FRC (Iron Armadillo-Fast Response Carrier)

Simple folding design.  
 Can be transformed from bag to carrier in seconds.  
 Super light weight.  
 Design for SAPIs soft and rifle plates.  
 Concealable magazine pouch design (Can hold up to 6 AR style magazines).  
 Can be used for personal ballistic shield (If SAPIs inserted)

**Additional:**  
 Tactical Molle Belt can be purchased separately.

Size : SM, MED, LG, XL



## Concealable BALCS VEST

Can be worn in conjunction with hard body armor plates in both and plate carriers, and packs.

- Lower weight, greater comfort
- Compatible with nearly all Plate Carriers that accept rifle plates, and some packs
- Strategic stitching improves overall performance
- Enhanced performance when combined
- Laminated Rips top cover with sonic welded seams for added durability and strength
- UV Resistant, Water Resistant, Corrosion Resistant



## COMPRESSION SHIRT

**BALLISTIC THREAT LEVEL: NIJ IIIA(3A)**

- 360-degree full stretch construction to help enhance muscle mobility
- The signature moisture transport system will wicks sweat and keep you cool and dry
- Anti-odor technology prevents the growth of odor-causing microbes to keep your shirt fresher and longer
- 40+ UPF protects your skin from the sun's harmful rays
- Smooth flat lock seams prevent chafing
- Armor holder is stitched into the shirt and made out of Active Mesh Material
- Active Mesh is breathable to allow for heat escape.
- Armor is removable as to allow for washing of shirt.





### Comfort covert vest

- Removable poly-cotton and mesh liner outer cover for easy cleaning
- Lasted super thin non-abrasive Velcro
- Ultra-violet resistant and waterproof panel carrier
- Adjustable waist and shoulder straps for better fit
- A great alternative to the traditional concealable vest in hot, humid, or tropical environments
- Accessories attachable according to customer requirements

### STANAG 2920 Protection Levels

Military standards for ballistic protection & armour, solutions for military applications are tested according to relevant NATO standards, normally STANAG 2920 (STANAG = NATO Standardization Agreement).

STANAG 2920 The adoption of standards for ballistic protection levels and testing

### Fragmentation Test (V50 Test)

| Frag level                               | F1   | F2   | F3   | F4   | F5   | F6   |
|--|------|------|------|------|------|------|
| Minimum Fragmentation Velocity V50* m/s  | 400  | 450  | 500  | 550  | 600  | 650  |
| Minimum Fragmentation Velocity V50* ft/s | 1310 | 1470 | 1640 | 1800 | 2000 | 2130 |

#### Standards:

- US Standard – Mill STD 662 E
- UK Standard – UK/SC/5449
- NATO Standard – STANAG 2920

STANAG 2920 (Ballistic test method for personal armour materials and combat clothing) is used to measure materials ability to stop fragments and shrapnel. The measuring technique was originally developed for body armour but now see general use in all situations where fragments are the primary concern. For instance, STANAG 2920 is used to measure Add-on-Armour systems for armoured vehicles.

Tests according to STANAG 2920 are conducted by shooting FSPs (Fragment Simulating Projectiles) onto the test specimen with different velocities while measuring the velocity of each FSP. By altering the velocities, after a number of shots an estimate of the ballistic limit can be obtained, which is the speed up to which the material defeats the fragment.

Combat troops rarely suffer injury or fatality from bullets but are at high risk from primary (direct) and secondary (environmental) fragmentation. To combat these threats Intelligent Armour Limited utilises a special range of Fragmentation F levels whose performance is measured by a V50 value.

#### International Ballistic Standards

The V50 test is the internationally recognised standard for assessing the fragmentation resistance of personal protection. The fragmentation test is conducted using Fragment Simulating Projectiles (FSPs) which are available in a range of weights approximately following the binomial progression. The test is conducted by firing FSPs at the armour at increasing velocities until an average velocity of penetrating and non-penetrating projectiles is obtained.

The higher the ballistic speed, measured in metres per second, the higher the rating of material, shown as V50 000m/s. The V50 (Velocity 50% or mean velocity) is the average of the velocities recorded for six fair impacts consisting of the three lowest velocities for complete penetration and the three highest velocities for partial penetration, provided the spread is not greater than 40 metres/second (STANAG 2920).



## PASGT

The PASGT (US Personal Armor System Ground Troops) the helmet is designed to protect against fragments/shrapnel And other ballistic threats; with improved comfort. Used by Military, Special Forces, Police and SWAT teams.

### FEATURES

- High ballistic performance with low weight, using high tenacity ballistic Aramid fiber
- Threat Level IIIA
- Available with four different suspension systems that have a four point chin cup
- Crown mesh with cross straps and plastic chin cup
- Shock Absorption harness with leather webbing and leather split chin strap
- Seven EVA foam pads with webbing cut chin strap



## ABH

The ABH Level IIIA Helmet manufactured with unique processing techniques to provide enhanced shell protection at a lower weight with improved comfort and mobility.

### FEATURES

- Four-point slide buckle, H-Nape adjustable chin strap with Mil-Spec Padded Liner
- Operator cut around the ears and brow for ease of use with various communication systems, NVGs and weapon optics
- Increased Nape Protection over Maritime cut
- Can be fitted with a variety of NVG mounts, side mount accessory rail systems, chin strap assemblies and padded shell liners



## ACH

The ACH I helmet, like the PASGT, provides true threat level IIIA ballistic protection but eliminates the visor in the front which allows for better mounting options for NVG shrouds.

### FEATURES

- High ballistic performance with low weight, using high tenacity ballistic Aramid fiber
- Threat Level IIIA
- Available with four different suspension systems that have a four point chin cup
- Crown mesh with cross straps and plastic chin cup
- Shock Absorption harness with leather webbing and leather split chin strap
- Seven EVA foam pads with webbing cut chin strap



## ACH Tactical

The ACH Tactical , like the PASGT, provides true threat level IIIA ballistic protection but eliminates the visor in the front which allows for better mounting options for NVG shrouds.

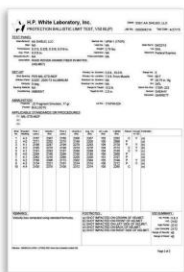
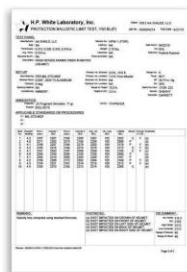
### FEATURES

- Threat Level IIIA
- Can be fitted with Ops-Core ACH ARC Rails
- Available with a variety of suspension systems
- Can be fitted with NVG Shroud



## Soft Armor

| Protection level                | Areal density (kg/m <sup>2</sup> ) | Thickness (mm) | According to level |
|---------------------------------|------------------------------------|----------------|--------------------|
| Bullet resistant:NIJ level IIIA | 6.4                                | 10             | NIJ 0101.06        |
| Stab resistant:NIJ level I      | 7.0                                | 12             | NIJ0115.00         |
| Stab resistant:NIJ level II     | 8.0                                | 13             | NIJ0115.00         |
| Stab resistant:NIJ level I      | 7.2                                | 12             | NIJ0115.00         |
| Bullet resistant:NIJ level IIIA | 7.2                                | 12             | NIJ 0101.06        |
| Stab resistant:NIJ level II     | 8.1                                | 13             | NIJ0115.00         |
| Bullet resistant:NIJ level IIIA | 8.1                                | 13             | NIJ 0101.06        |



## Rifle Plate



**Protection Level : NIJ III**  
**Size: 10X12 inch / 30X25 cm**  
**Weight: 2.99 lb / 1.35 kg**  
**Ammunition:**  
 (1) 7.62mm Ball, M80, 149 gr  
 (2) 5.56mm Ball, M193, 55 gr



**Protection Level : NIJ III +**  
**Size: 10X12 inch / 30X25 cm**  
**Weight: 5.1 lb / 2.3 kg**  
**Ammunition:**  
 (1) 7.62mm Ball, M80, 149 gr  
 (2) 5.56mm Ball, M855, 62 gr  
 (3) 7.62 X 39mm API,BZ,123 gr



**Protection Level : NIJ IV**  
**Size: 10X12 inch / 30X25 cm**  
**Weight: 5.91 lb / 2.68 kg**  
**Ammunition:**  
 (1) CAL..30 AP , M2, 166 gr







**Model No.: WSFZ SM01 Wheeled type**

**Protection level: NIJ IV / EN B7 (.30 M2 AP)**

**Material: FRP/Alumina ceramic Composite**

**Surface treatment: Sleek**

**Size: 185x60cm**

**Profile: Flat**

**Weight: 130kg**



**Model No.: WSFZ SM03**

**Protection level:**

**NIJ III- (M193&SS109 M16,AK47)**

**Material: Kevlar/Alumina ceramic**

**Surface treatment: Matte**

**Size: (185-195)x75cm**

**Profile: Curved**

**Weight: 95kg**



**Model No.: WSFZ SM02**

**Protection level: NIJIV / EN B7(.30 M2 AP)**

**Material: Kevlar/Alumina ceramic**

**Surface treatment: Matte**

**Size: 160x75cm**

**Profile: Curved**

**Weight: 75kg**



**Model No.: WSFZ SM04**

**Protection level: NIJIV / EN B7(.30 M2 AP)**

**Material: UHMWPE/Silicon carbide ceramic**

**Surface treatment: Matte**

**Size: 100x60cm**

**Profile: Curved**

**Weight: 31-36kg (Different shape)**





**Model No.: WSFZ SM05**

**Protection level: NIJIV / EN B7(.30 M2 AP)**  
**Material: Kevlar/Alumina ceramic**  
**Surface treatment: Matte**  
**Size: 170x70cm**  
**Profile: Curved**  
**Weight: 82kg**



**Model No.: WSFZ SH03**

**Protection level: NIJ IIIa**  
**Material: Kevlar**  
**Surface treatment: Sleek / Matt**  
**Size: 50x90cm**  
**Profile: Curved**  
**Weight: 10kg**



**Model No.: WSFZ SM06**

**Protection level: NIJ III(7.62x51,5.56x45,7.62x39)**  
**Material: Kevlar/Alumina ceramic**  
**Surface treatment: Matte**  
**Size: 175x70cm**  
**Profile: Flat**  
**Weight: 95kg**

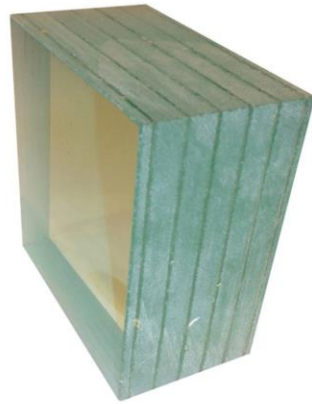
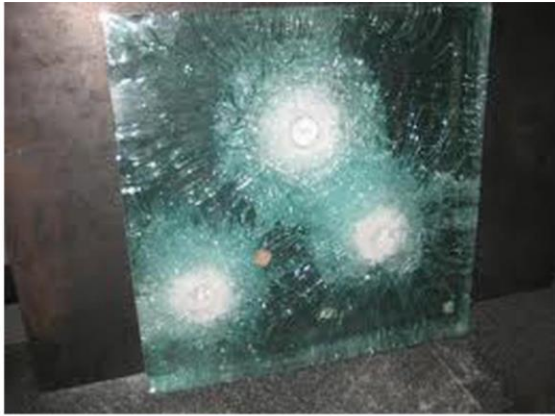


**Model No.: WSFZ SH04**

**Protection level: NIJ IV / EN B7**  
**Material: Kevlar&SiC composite**  
**Surface treatment: Sleek / Matt**  
**Size: 60x55cm**  
**Profile: Curved**  
**Weight: 18kg**







| Protection Level | Areal Density (kg/m <sup>2</sup> ) | Thickness (mm) | Ammunition       |
|------------------|------------------------------------|----------------|------------------|
| Nij 0101.08      | 40                                 | 17             | 9 mm and .44mag  |
| Nij 0101.08      | 45                                 | 19             | 9 mm and .44 mag |
| ---              | 90                                 | 36             | AK47 7.62 X 39   |
| Nij 0101.08      | 140                                | 56             | M80 7.62 X 51    |



**Bullet Proof Glass Shield NIJ IIIA**



**Bullet Proof Visor For Helmet NIJ IIIA**

# Less Lethal Anti-Riot Equipment



## **Anti-Riot Shield**

**Material: High Strength Aluminum Alloy**

**Demission: 900mm x 500mm x 2mm**

**Weight: 3.3kg (7.3lbs)**

## **Anti-Riot Helmet**

**Material: High Strength PC/ABS**

**Demission: 2.5mm PC face shield, 3.4mm ABS helmet**

**Weight: 1.56kg (3.4lbs)**



**GREEN**

**CAMO**

**WHITE**

**BLACK**

**NET SHIELD**

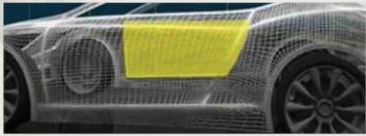




**Vehicle Bulletproof Glass**



**Run Flat System**



**Bulletproof Car Door**



**Exhaust Ballistics Protection**



**Battery Ballistic Protection**



**Anti-mine Chassis**



**Reinforced Suspension Brakes**



**Vehicle Communication System**



**Ballistic Fuel Tanks**



**LE Light System**



We provide fully customized bullet-proof vehicle upgrade as requirements. High-quality materials will be used to the minimum the weight increasing less than 50% compared to the traditional steel plate. The maximum threat level can be reached to EU B6 level with our newest High-strength fiber composite material, and additional weight will be control in 300 Kgs. All parts and level can be customized! Please contact for details!