



OFFICE OF THE DIRECTOR OF POLICE
THE UNIVERSITY OF TEXAS SYSTEM
TRAINING/ADVISORY BULLETIN 016



RIFLE ARMOR PLATES
SEPTEMBER 22, 2016

I. Purpose

The purpose of this advisory bulletin is to provide information to all institution police departments regarding the selection of rifle-resistant body armor/plates. Such ballistic protection is designed to provide protection from high powered rifle threats for those entering high-risk situations. Hard armor consists of rigid panels, or plates, of ballistic-resistant materials. Hard armor is designed to offer greater protection against higher threats than the soft body armor worn by officers daily.

II. Background

The National Institute of Justice (NIJ) establishes and updates voluntary minimum performance standards for body armor, and conducts testing against these standards to ensure that body armor complies with the standards. NIJ is the only national standard for police body armor. Personal body armor covered by NIJ standards are classified into types (IIA, II, IIIA, III, IV) by level of ballistic performance. Manufacturers and distributors that utilize NIJ standards for product ratings are highly recommended.

III. NIJ Body Rifle Armor Plate Types

➤ NIJ LEVEL III:

- This armor, normally of hard or semi-rigid construction, protects against 7.62mm full-metal jacketed bullets (US military designation M80) with nominal masses of 9.7 g (150 gr.)
- It also provides protection against threats such as 223 Remington (5.56mm FMJ), 30 Carbine FMJ, and 12-gauge rifled slug, as well as Level I through IIIA threats
- Level III body armor is typically intended for tactical situations when the threat warrants such protection, such as barricade confrontations involving suspects armed with high-powered rifles.

➤ NIJ LEVEL IV:

- This armor protects against .30–06 caliber armor-piercing bullets (US military designation APM2) with nominal masses of 10.8 g (166 gr.)
- It also provides at least single-hit protection against the Level I through III threats
- Level IV body armor provides the highest level of protection currently available. Because this armor is intended to resist “armor piercing” bullets, it often uses ceramic materials
- As with Level III armor, Level IV armor is typically intended for tactical situations when the threat warrants such protection.

Threat Level Protection Table:

LEVEL III ARMOR	LEVEL IV ARMOR
Defeats NIJ Standard Threat:	Defeats NIJ Standard Threat:
7.62 x 51mm (.308) FMJ / M80 Ball – 147 gr 2780 ft/s	30-06 / M2 AP – 166 gr 2880 ft/s
Defeats Special Threats:	Defeats Special Threats:
7.62 x 39mm LC	7.62 x 54Rmm API
5.56 x 45mm LC/Ball NATO/M193	7.62 x 51mm (.308) AP/Black Tip
+ all lesser threats	7.62 x 39mm AP / API
	5.56 x 45mm / SS109 Green Tip
	+ all lesser threats

Note: 5.56 NATO and .223 are common projectiles associated with AR's. 7.62, 30-06 and .308 are common projectiles associated with AK-47 rifles. Ballistic plates differ in ballistic protection provided. Check product specifications for threat level protection.

IV. Ballistic Plates

- Ceramic and Polyethylene armor plates are available in two different types or classes tested and recognized by the NIJ (type III and type IV). Type III plates are rated to stop rifle rounds. Type IV plates are rated to stop armor-piercing rounds.
 - plate types are made of different material
 - use strong/light materials to provide strength and protection
 - are designed to stop rounds of a higher velocity, primarily fired from rifles
 - offer front/back and side protection against rifle rounds
 - vary in size/shapes to provide maximum protection to vital organs

Ballistic Plate Comparisons:

Polyethylene Plates	Ceramic Plates
Lightweight	Heavy
Higher cost	Lower cost
Withstand multiple rounds	Withstand limited rounds
Durable	Fragile



Vendor Links

AR500 Armor

<http://www.ar500armor.com/>

Spartan Armor Systems

<https://www.spartanarmorsystems.com/>

GT Distributors

<https://www.gtdist.com/>

Galls

<http://www.galls.com/>

ATS Armor

<http://www.atsarmor.com/>

Note: Products shown meet NIJ standards. Prices may vary and subject to change. Check vendors for product specifications and LE rates.

V. Armor Carriers

- A component of the armor sample or armor panel whose primary purpose is to retain the ballistic panel and provide a means of supporting and securing the armor garment to the user. Generally, the carrier is not ballistic resistant and provide the following;
- Modular Lightweight Load-carrying Equipment
 - external wear, worn over any existing gear or body armor.
 - fully adjustable to fit sizes medium to XXL

VI. Federal Funding

Federal Grant funding is available and the entire application-through-payment process for the Bulletproof Vest Program (BVP) is managed via the online BVP system. The Office of Justice Programs (OJP) website will be the key resource in applying for (BVP) funding: <http://ojp.gov/bvpbasi/bvp3EasySteps.htm>

VII. Conclusion

The selection of body armor is to some extent a decision based upon the level of ballistic protection required and the wearability. The weight and bulk of body armor are generally proportional to the level of ballistic protection it provides; therefore, comfort generally decreases as the protection level increases. Decisions regarding the purchase of Level III and Level IV body armor should be based on the mission, requirements and capabilities needed.



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