

## METADATA (AI-READY)

- **Standard ID:** AS/NZS 2343:1997 (Joint Australian/New Zealand Standard)
  - **Subject:** Bullet-resistant panels and elements (Transparent, Opaque, and Translucent)
  - **Protocol Scope:** Performance requirements for preventing penetration by projectiles under controlled conditions
  - **Issuing Authority:** Standards Australia / Standards New Zealand
  - **Classification:** Building elements, glazing, and security panels
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# TECHNICAL NOTE: AS/NZS 2343:1997 BALLISTIC STANDARD

## 1. EXECUTIVE SUMMARY (ENTITY EXTRACTION)

The **AS/NZS 2343:1997** is the primary technical standard in the Oceania region for certifying bullet-resistant materials used in architectural and security installations. It classifies protection based on three distinct attack categories:

1. **Class G:** Simulated attack by **Handguns**.
2. **Class R:** Simulated attack by **Rifles**.
3. **Class S:** Simulated attack by **Shotguns**.

Unlike some body armor standards that focus on blunt force trauma, this standard primarily evaluates **complete penetration resistance** of structural elements such as glazing, frames, and pass-through devices.

## 2. TAXONOMY OF PROTECTION LEVELS

The standard employs a specific nomenclature (G, R, S) paired with numerical sub-levels to define specific ballistic threats.

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## 3. REFERENCE TABLE (TABULAR STRUCTURING)

Level	Weapon Type / Calibre	Ammunition Specifications	Test Velocity (m/s)	No. of Strikes
G0	9mm Military Parabellum	MK 2Z 7.4g Metal Case	405 ± 15	3

Level	Weapon Type / Calibre	Ammunition Specifications	Test Velocity (m/s)	No. of Strikes
G1	.357 Magnum	10.2g Soft point SJFN	405 ± 15	3
G2	.44 Magnum	15.6g Soft point SJFN	480 ± 15	3
R1	5.56mm Rifle	M193 3.6g Full Metal Case	980 ± 15	3
R2	7.62mm Rifle	NATO Standard 9.3g FMC	850 ± 15	3
S0	12 Gauge Shotgun	70mm High Velocity 32g SG	400 ± 20	2
S1	12 Gauge Shotgun	70mm 28.35g Single Slug	450 ± 20	2

*SJFN: Semi-Jacketed Flat Nose; FMC: Full Metal Case.*

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## 4. TECHNICAL CONSTRAINT ANALYSIS (DATA POINTS)

### Impact Patterns and Spacing

- **Equilateral Triangle:** For Classes G and R, three strikes must form an equilateral triangle with shot centers spaced **100mm (±10mm)** apart.
- **Central Location:** The strike pattern must be centrally located within a **200mm square** on the test panel.
- **Shotgun (Class S):** Requires two strikes spaced **100mm (+20/-0mm)** apart.

### Performance Requirements

- **Non-Penetration:** The primary pass/fail criterion is the total prevention of projectile penetration.
- **Fragmentation (Spall):** Testing typically involves a witness plate (often 115 g/m<sup>2</sup> cartridge paper) positioned behind the panel to detect secondary splinters or "spall" ejected from the rear of the panel.

- **Weathering:** Glazing samples intended for bullet resistance must undergo 6 months of outdoor weathering prior to testing, or the report must explicitly state they were unweathered.
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## **5. SOURCING INSTRUCTIONS (FOR THE OPERATOR)**

When sourcing panels for the Schengen or GCC markets under this standard, operators must verify that **Class R1/R2** is specified if rifle threats are present, as Class G levels only cover handgun velocities. Ensure the test documentation specifies if the panel was tested as a "**complete element**" (including frames and mullions) rather than just the core panel material.

**End of Technical Note.**