

Security Glazing & Framing Systems **For Schools**

A Practical Guide to Access Denial & Active Threat Protection



**ASTM F3561 Level 8 Certified
for Forced-Entry Active Threat Resistance**



**UL 752 Level 7 Rated
for Ballistic Protection**





What is Riot Glass?

Invisible Protection. Engineered Strength.

Riot Glass is a retrofit security glazing and framing solution that transforms your vulnerable school windows and doors into virtually unbreakable, time-buying barriers against forced entry, vandalism, and other high-impact events, while maintaining the look of regular glass.

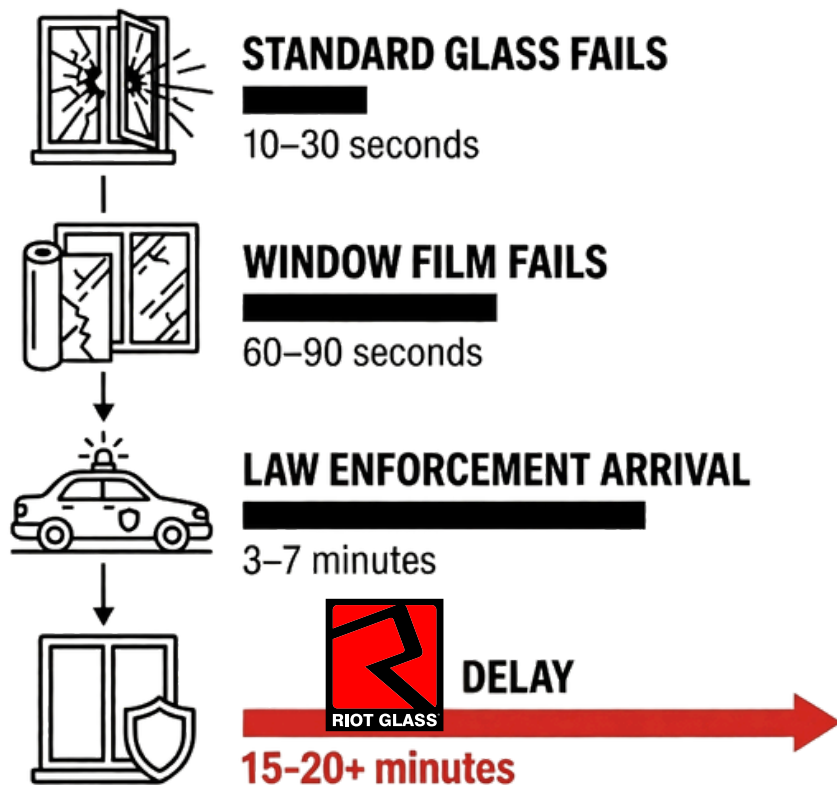
Riot Glass can **delay or deny intruders for 15-20+ minutes**—giving students, staff, and law enforcement the critical time needed to respond and save lives.



Original Frame
Riot Glass System

The Critical Time Gap:

30-Second Vulnerability



The Time Gap Most Schools Overlook

In most active threat incidents, entry is gained by breaking glass in doors, sidelites, or ground-floor windows.

Most active threat events involve breaching glass within the first 30 seconds of arrival.

Modern school security glazing must do more than resist impact. It must maintain a secure barrier long enough for:

- Lockdown procedures to activate
- Staff to secure classrooms
- Students to evacuate or barricade
- School resource officers to respond
- Law enforcement to arrive

Riot Glass systems are engineered to maintain barrier integrity under sustained tool and firearm attack — far exceeding standard response time windows.

In This Document We'll...

- ✓ Identify the Five Critical Vulnerability Zones in your building envelope, and explain how Riot Glass buys you time at each vulnerable access point
- ✓ Explain which testing standards actually matter
- ✓ Learn why conventional glass, window film, and "standard security glass" fail under real attacks, and understand the difference between containment and access denial
- ✓ Compare Riot Glass Access Denial Systems with other market options and help you choose the solution that is right for you
- ✓ Provide answers to Frequently Asked Questions that you, your board, and administrators may have before making a decision

Our goal is simple: To help you make an informed decision that protects your students, staff, and community with dignity and proven effectiveness.

Five Critical Vulnerability Zones

School buildings rely on glass for natural light, visibility, and an open, welcoming environment. Unfortunately, those same features create vulnerable entry points for attackers.

Riot Glass has you covered for each of the five most vulnerable access points in your building envelope.

Vulnerability Zone	Why Vulnerable	How Riot Glass Protects	Time Delay
Tier 1: Main Entrances & Vestibules 	Often all-glass designs with large windows and minimal framing. Primary target in most attacks.	Retrofits doors and adjacent entry windows. Blocks reach-through to locks and handles while keeping a clear glass look.	15–20 mins
Tier 2: Administrative Office Fronts 	Extensive glazing in lobbies or main corridors exposes staff, communications, and emergency controls.	Secures reception windows, counters, and office fronts. Prevents reach-through to staff and systems. Preserves open, visible offices while hardening the barrier.	15–20 mins
Tier 3: Ground-Floor Perimeter Windows 	Easily reached from outside, these windows offer quick entry and clear views into occupied spaces.	Adds clear security panels over existing windows. Stops quick smash-and-grab entry from outside without changing views.	10–15 mins
Tier 4: Classroom & Corridor Doors 	Interior and exterior doors with glass allow visibility but offer little protection. Sight lines allow attackers to exploit access to door hardware.	Reinforces door glass and sidelites. Blocks break-and-reach attacks on locks. Strengthens lockdown doors while maintaining egressability.	10–15 mins
Tier 5: Large Gathering Areas 	Expansive curtain walls and glass in cafeterias, gyms, and media centers create weak entry points.	Secures curtain walls in large spaces. Keeps large glass walls intact under sustained attack with full daylight and visibility.	20+ mins

Modern hardening strategies prioritize Tier 1 and Tier 2 vulnerability zones before expanding outward.

Testing Standards Explained



Testing Standards that Actually Matter

Not all “security glass” is tested the same.

Many products on the market are independently tested only to safety standards, not to active threat standards.

True security performance requires 3rd Party testing to the strictest standards:

ASTM F3561 – Simulated Active Threat

ASTM F1233 – Forced Entry

UL 752 – Ballistic Resistance

These standards verify that the glazing and framing stay intact, deny access, and buy time for lockdown and law enforcement response.

Riot Glass systems are third-party tested to the highest industry standards.

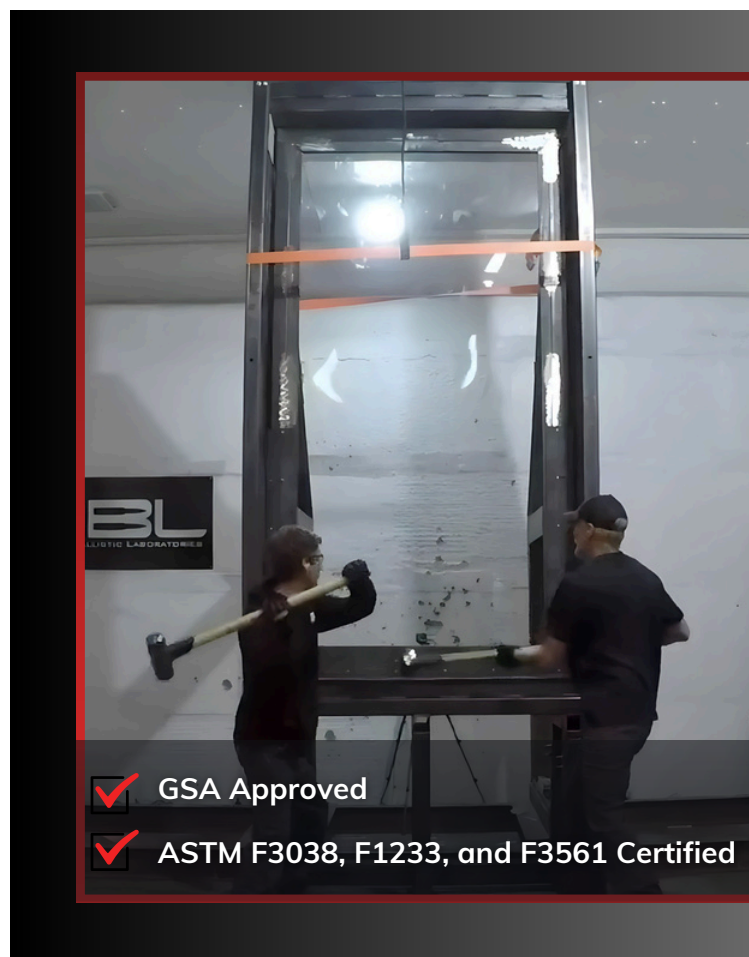
Test Standard	Description	Riot Glass Performance
ASTM F3561	Simulated active threat attack	Passed Level 8 (400 ft-lbs)
ASTM F1233	Tool-based forced-entry attack	Passed Class 2.4
UL752	Ballistic resistance (optional)	Passed Levels 1 - 7

Strength You Can Depend On

Performance Validated.

Riot Glass systems have been 3rd-party tested under rigorous laboratory conditions, and to real life attack scenarios including:

- Prolonged sledgehammer attacks **(multiple sustained strikes)**
- High-temperature environments **(up to 140°F)**
- Extreme cold conditions with impact stress **(as low as -40°F)**
- **Ballistic testing** to UL 752 standards
- **Tool-based forced-entry testing** to ASTM F1233 standards
- **Multi-shot attack scenarios** per ASTM F3561 standards



Why Most School Glass Fails Under Real-World Attack



Standard Glass Types in Schools

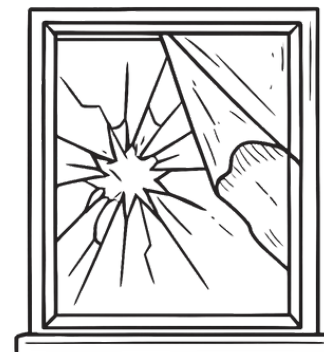
Most schools today use one of three glass types in doors and windows: **Tempered**, **Annealed**, and **Laminated**.

However, none of these are designed to resist forced entry or ballistic threats.

Glass Type	Characteristics	Security Rating
Tempered	Crumbles into small pebbles (safe shards)	Very weak (breaks fast)
Annealed	Large sharp shards	Better with film + frame
Laminated	Two layers w/interlayer	Fails quickly under force

Why Window Film Alone Fails

- **Not bullet resistant** – Designed to hold glass fragments together, not stop bullets
- **Fails in 90 seconds or less** under a determined attack with common tools
- **Can be punctured** – Attackers reach through and unlock doors
- **Misleading demonstrations** – Controlled tests don't replicate a real attack
- Even top brands (like 3M) **clearly state** these limitations



Containment Glass vs. Access Denial Systems

Slowing Entry vs. Stopping Entry —
This distinction is critical when evaluating real-world performance.

Many products are designed for containment — holding broken glass in place after impact.

This may delay entry briefly, but still allows reach-through access to door hardware.

Access denial systems are engineered differently.

These systems are designed to maintain the integrity of the entire opening under sustained tool and firearm attack, preventing access rather than simply containing fragments.

The Riot Glass Difference: Engineered for Access Denial

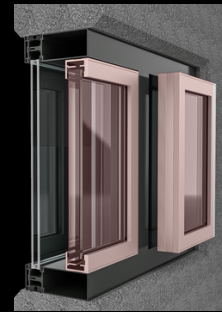


YOUR BEST OPTION: ACCESS DENIAL GLAZING

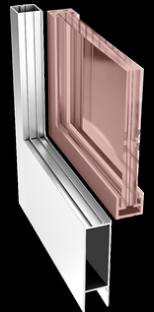
- Retrofit system with a **virtually indestructible panel**
- Mounted with our **UFS (Universal Framing System)**
- **Invisible integration**, long lifespan
- Lower cost than film + replacement or ballistic glass
- **Tested and certified** by 3rd party labs



*Standard
Over-Glaze*



*High-Performance
Back-Glaze*



*Door Conversion
System*



Tailored Engineering for Retrofit Performance

Riot Glass retrofits into nearly any existing school window or door frame—eliminating costly tear-out and full replacement. This reduces disruption and expense, making it ideal for campuses with extensive glazing and large glass entries.

Our systems are engineered to maintain barrier integrity under sustained attack—delivering continuous protection for K–12 and higher education facilities.

Solutions for All Your Vulnerable Access Points

Riot Glass offers access denial security glazing solutions for the full perimeter of your facility.

Our solutions deliver:

- 15–20+ minute delay performance
- UL 752 ballistic options
- Retrofit capability into existing frames
- Minimal operational disruption
- Long-term lifecycle durability

Each Riot Glass system is custom engineered based on your risk tier and budget strategy.

Standard Over-Glaze Window Security

Ideal for perimeter windows and corridor glazing.

High-Performance Back-Glazing Systems

Ideal for ballistic-rated RG-Series panels.

Security Door Conversion

Harden existing aluminum or wood-framed doors.

RG1-XL Oversized Glazing

For curtain walls and large-format glass.

Choosing the Right Solution for Your School



A Phased, Budget-Aligned Security Strategy

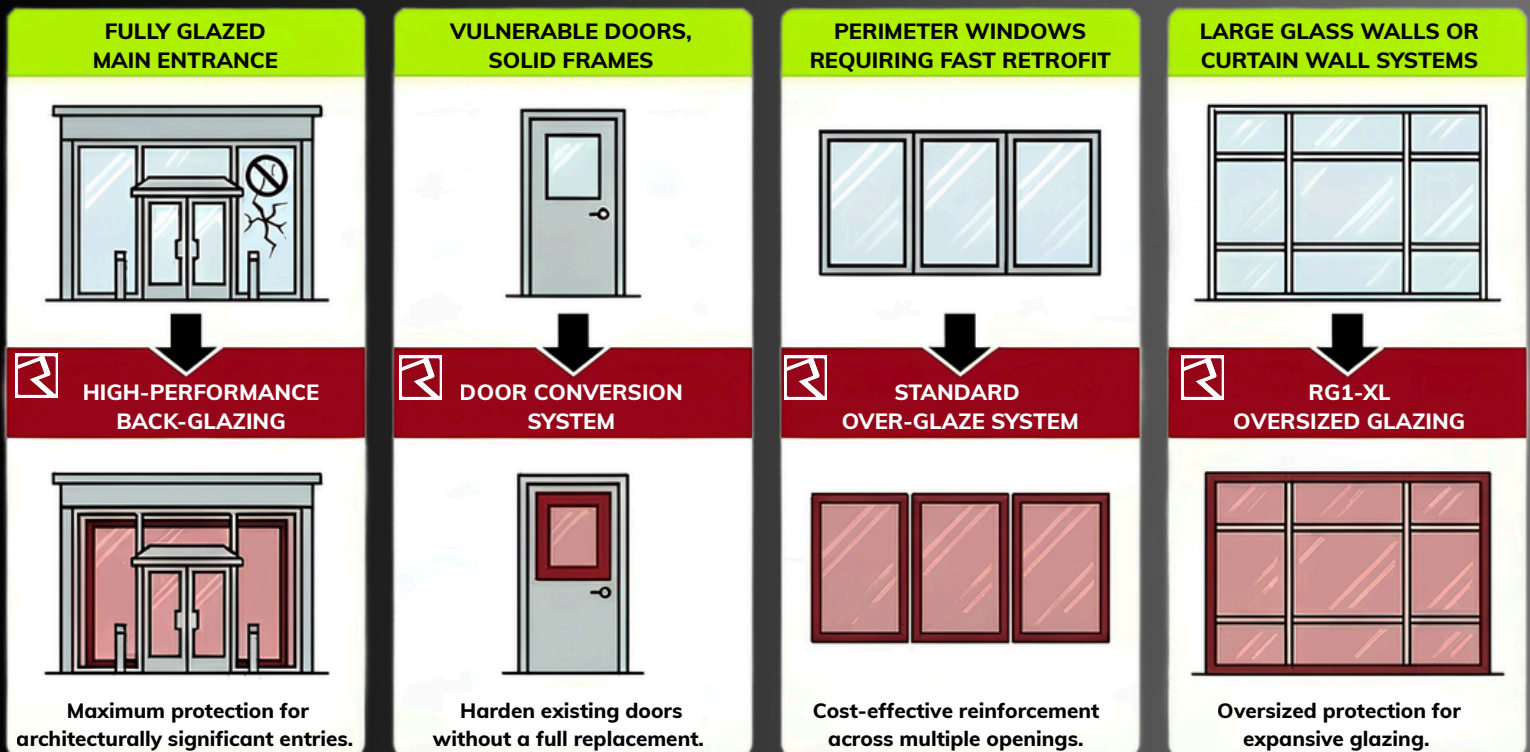
Most districts prioritize protection in phases. This approach aligns safety improvements with budget cycles and capital planning.

Retrofit systems reduce cost 40–60% compared to full ballistic replacement while maintaining standards-based performance.

- Phase 1** – Main Entrances & Vestibules
- Phase 2** – Administrative Areas
- Phase 3** – Ground-Floor Perimeter Openings
- Phase 4** – Large Gathering Spaces

The Right Solution for Every Opening

Each school opening carries a different level of risk. This graphic will help you match the right Riot Glass solution to your critical areas of need—supporting smarter, phased protection.



Our Process:

From Assessment to Installation

Step 1: Comprehensive Security Assessment

We begin each project with a thorough assessment of the current security infrastructure.

What's included:

- Site surveys to identify physical vulnerabilities and access points
- Risk assessments to determine potential threat areas (if not already established)
- Evaluation of existing glass types (tempered, annealed, or laminated) and building structure
- Careful review of local building codes and structural engineering requirements
- Coordination with facilities staff, architects, and general contractors

Step 2: Custom-Engineered Security Solutions

Based on our assessment, we engineer a customized security plan tailored to your facility's specific needs with minimal operational disruption.

Solutions may include:

- Forced-entry resistant door modifications
- Forced-entry window barriers
- Ballistic infill panels, fixed and swinging
- Security shutters
- Phased implementation that prioritizes the highest-risk areas first

Step 3: Professional Installation and Support

Our team of experts ensures a seamless installation and ongoing project support. Riot Glass provides complete documentation for technical support, maintenance, cleaning, and warranty.



Installations are scheduled to minimize disruption — evenings, breaks, and low-traffic periods.

Frequently Asked Questions

FAQs



1

Retrofit or replacement?

In most cases you can retrofit. Riot Glass is engineered to mount onto a variety of existing windows and doors, hardening them without major demolition or extended downtime.

2

How long will Riot Glass delay or deny entry?

Riot Glass can delay or deny intruders for 15-20+ minutes—giving students, staff, and law enforcement the critical time needed to respond and save lives.

3

What testing standards does Riot Glass meet?

Riot Glass is 3rd party tested to ASTM F3561 Level 8 (active threat), ASTM F1233 (forced entry), and UL 752 (ballistic). Our proposal lists the exact standards each opening meets so you can document compliance and align with district safety policies.

4

Are Riot Glass ballistic solutions rifle-rated?

We offer multiple UL 752 levels, including configurations tested for rifle threats, not just handguns. Our security specialists recommend the right level for each area based on your threat profile, law-enforcement guidance, and budget.

5

Is Riot Glass egress compliant?

Riot Glass is designed to work with code-compliant school doors and hardware, preserving required egress and accessibility when properly specified. We collaborate with your facilities team and local officials to ensure upgrades support both life-safety and security goals.

6

Will there be any aesthetic impact?

Riot Glass is clear and low-profile, so it looks like standard glass while providing much higher protection. You keep natural light and an open, welcoming appearance—without bars, grilles, or a "fortress" look.

7

Installation disruption?

Retrofit installation is typically faster and less disruptive than full replacement. We phase work around your calendar—prioritizing key entries and high-risk areas during breaks, evenings, or other low-impact times.

8

What is the lifecycle for Riot Glass?

Riot Glass maintains like standard glazing—routine, non-abrasive cleaning. With no exposed films to peel or yellow, panels are designed for long service life, and individual units can be replaced if ever damaged.

9

Cost comparison?

Riot Glass retrofits generally cost more than basic films but less than full ballistic replacements, while delivering far better real-world protection. Over time, its durability and performance make it a strong value compared with film-only systems or repeated glass replacements.

10

Where do we start?

Start with a security glass assessment from a Riot Glass school security specialist. We survey your campuses, rank vulnerable openings, and provide a phased, budget-aligned plan—beginning with main entries and highest-risk areas—so you can move forward confidently.

Next Steps:

Proactive Protection For Your Students



**Time buys options.
Options save lives.**

Preventing entry is the most critical line of defense.

Proactive districts are addressing glass vulnerabilities now through phased, standards-based upgrades.

Only Riot Glass Access Denial Systems Offer:

- **15-20+ minutes of critical, life-saving delay time**
- Invisible protection that maintains the building's original architectural intent
- 20+ year lifespan with minimal maintenance

Schedule Your Free Security Assessment

A Riot Glass Security Expert will:

- Identify vulnerable entry points
- Review existing glass and framing conditions
- Recommend standards-based solutions
- Outline phased implementation options
- Provide budget-aligned estimates

No cost. No obligation. No pressure.
Just expert analysis and clear recommendations.

Create a secure learning environment with us today.

Final Takeaway: Buying Time is Critical

When You Choose Riot Glass, You're Investing In:

- Proven engineering backed by 3rd-party testing
- American-made quality
- Exceptional customer support
- Peace of mind for administrators, staff, and parents

Let's work together to keep your students safe.

CONTACT US



A Trusted Partner

Riot Glass LLC is the leading manufacturer of American-made retrofit security glass and door systems.

Protecting schools, government buildings, and storefronts from threats is our business and our mission.

