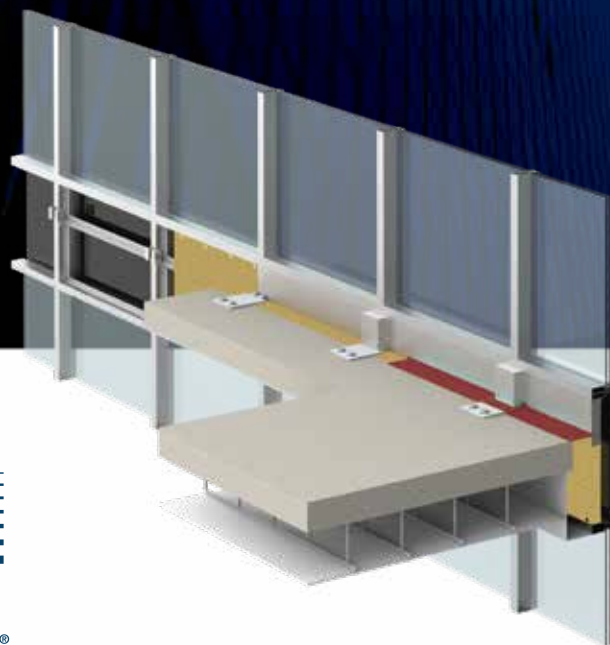


Explore limitless possibilities.

P E R I M E T E R F I R E B A R R I E R S Y S T E M S

One World Trade Center, New York City, NY



## Protect your creative vision with real world firestop solutions.

A building's facade is distinctive. Perimeter fire barrier systems in high rise construction are an important life safety consideration, but sound fire containment practices should not interfere with design aesthetics. As a designer or builder, you need perimeter fire barrier systems that afford adaptability to work with your design, and STI can help.

“STI provides unmatched technical support for perimeter fire barrier systems.”

**Jim Warbrouck**  
Senior Consultant, Curtain Wall  
Design & Consulting Inc.



### System Coverage Breadth Matters

Perimeter fire barrier systems are code mandated, and code officials or inspectors verifying building code compliance scrutinize slab-edge conditions. STI can keep your projects on track with more tested and listed systems that assure code compliance.

### Tested and Listed Systems Ensure Code Compliance

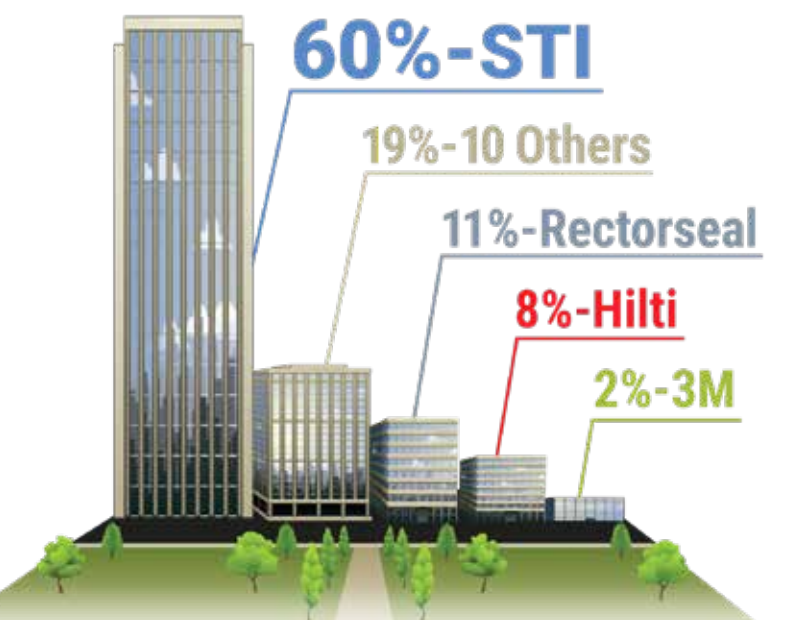
STI Firestop understands the nuances of curtain wall and perimeter fire barrier systems because of our commitment to research and development. With more tested and listed systems for perimeter fire barrier systems than any other manufacturer, our versatile solutions conform to virtually any job site condition.



### Codes & Technology

Curtain wall perimeter fire barrier systems are tested to ASTM E2307. This test method uses a two-story structure known as the intermediate scale multi-story test apparatus (ISMA). The ISMA structure subjects the test assembly to fire exposure from two sides simultaneously with an exterior burner that replicates a fire induced window break.

### Most UL® Systems



\* STI has more UL® Certified perimeter fire-containment systems than all other suppliers combined.  
Source: UL® Directory as of 1/2019



## TESTED DESIGNS



“STI has the UL® tested designs and field support that limits liability and exposure while providing cost-effective peace of mind. It's why CDC and STI work closely together.”

**Jim Warbrouck**  
Senior Consultant, Curtain Wall  
Design & Consulting Inc.

STI offers the complete breadth of tested coverage that provides designers the flexibility to execute their creative vision while ensuring ongoing code compliance and life safety.

### Back Pan Curtain Walls

Our patented safing shelf-system replicates real world curtain wall construction. It is the only practical system that can be built in a factory.

### Shorter Spandrels, Lower Sill Heights

Accommodates more vision glass.

### More Facade Types

Glass (opaque or clear), aluminum, stone, brick veneer, EIFS, GFRC, precast concrete, composite metal panels, and more.

### Multiple Insulation Attachments

A variety of tested methods, to support and attach curtain wall insulation, offer unmatched flexibility in the field and lower the overall cost of installation.

### Pipes & Cables Through Floor Gap

Pipes for radiators or electrical cables are tested to pass through the safing gap.

### Fire Ratings

Tested and listed systems up to 4 hours.

### All Major Mineral Wool Brands

Testing for all commercially available mineral wool brands.

### Block Smoke Leakage

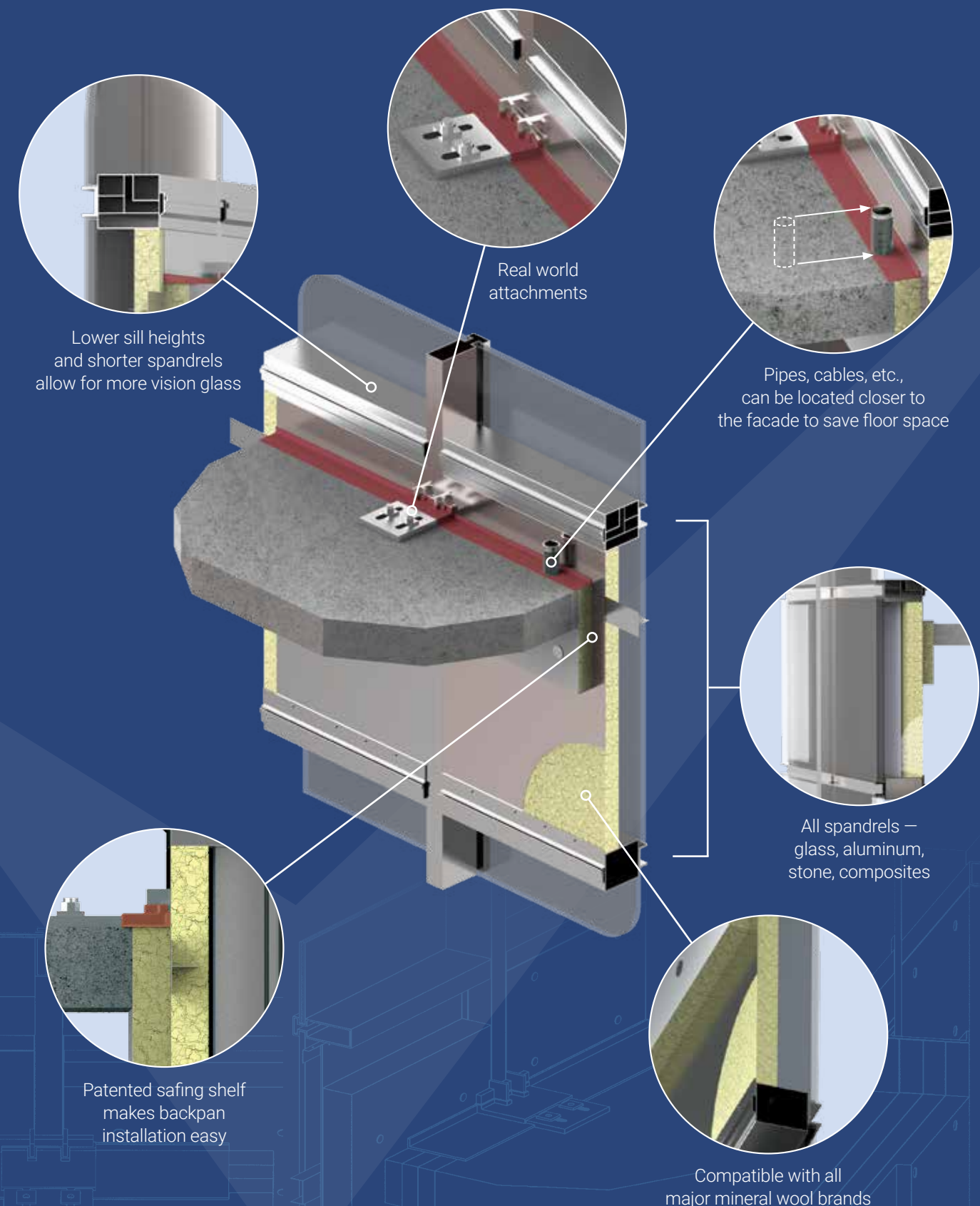
Low L Ratings (<1 CFM/LF) are included in the systems to confirm ability of coating to limit air and smoke movement.

### Real World Movement

Dynamic tests replicate real world movement ranges and remain practical to install for construction workers using common tools and methods.

## Curtain Wall Solutions

## CERTIFIED SYSTEMS



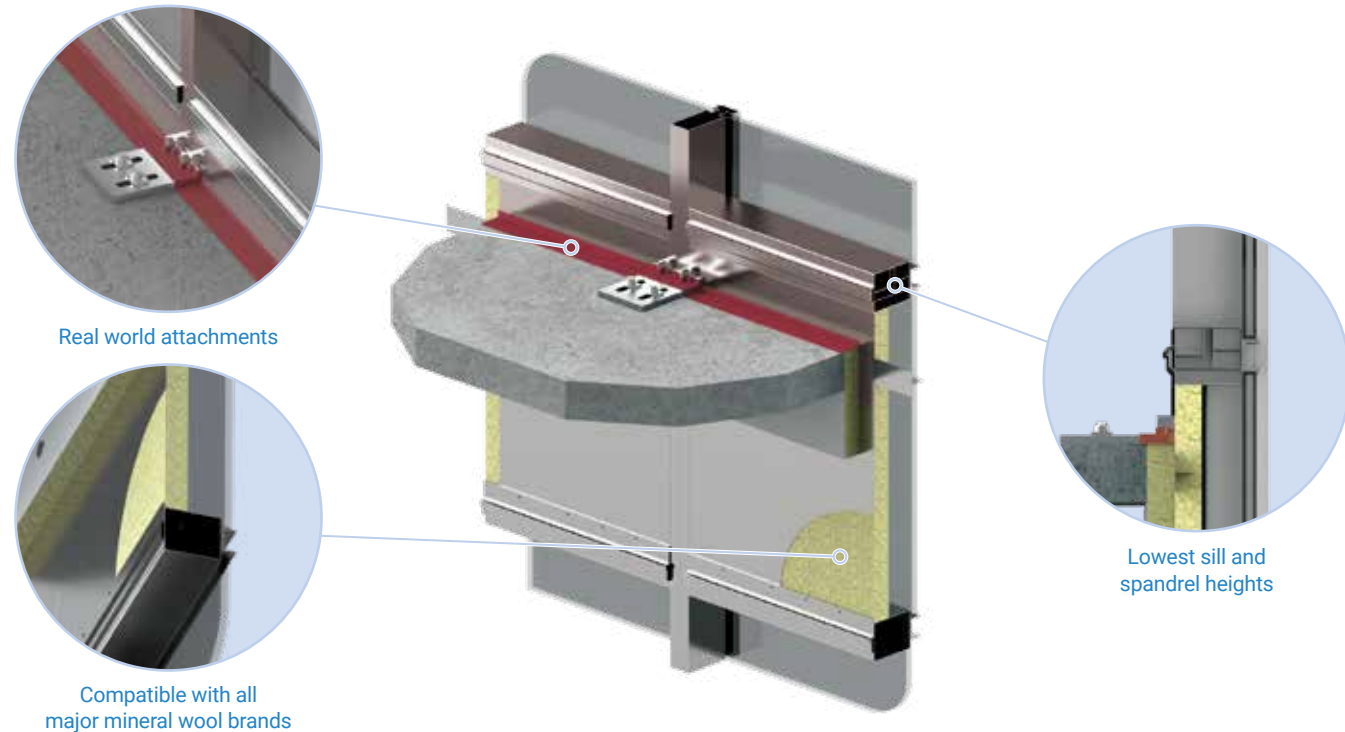


## B A C K P A N S

Unitized backpan designs have become increasingly popular, presenting a multitude of new challenges under fire conditions. During a fire, deflection of the steel backpan can cause severe repercussions on the performance of the spandrel insulation, the safing insulation, and the firestop spray—all of which are designed to maintain the integrity of the wall to meet code requirements.

- One or two-piece tubular aluminum frames
- Minimum 22 gauge flush or recessed steel backpans vs. 18 gauge

- Lowest sill and spandrel heights
- Multiple spandrel types
  - Transparent or opaque glass panels
  - Aluminum panels and stone panels
  - Aluminum composite panels
- Optional shadow box for transparent glass panels
- Tested by multiple insulation manufacturers
- Shortest transom spacing
- Shortest sill heights
- Documented "L ratings"
- Penetration in the safing slot
- Vertical shear movement

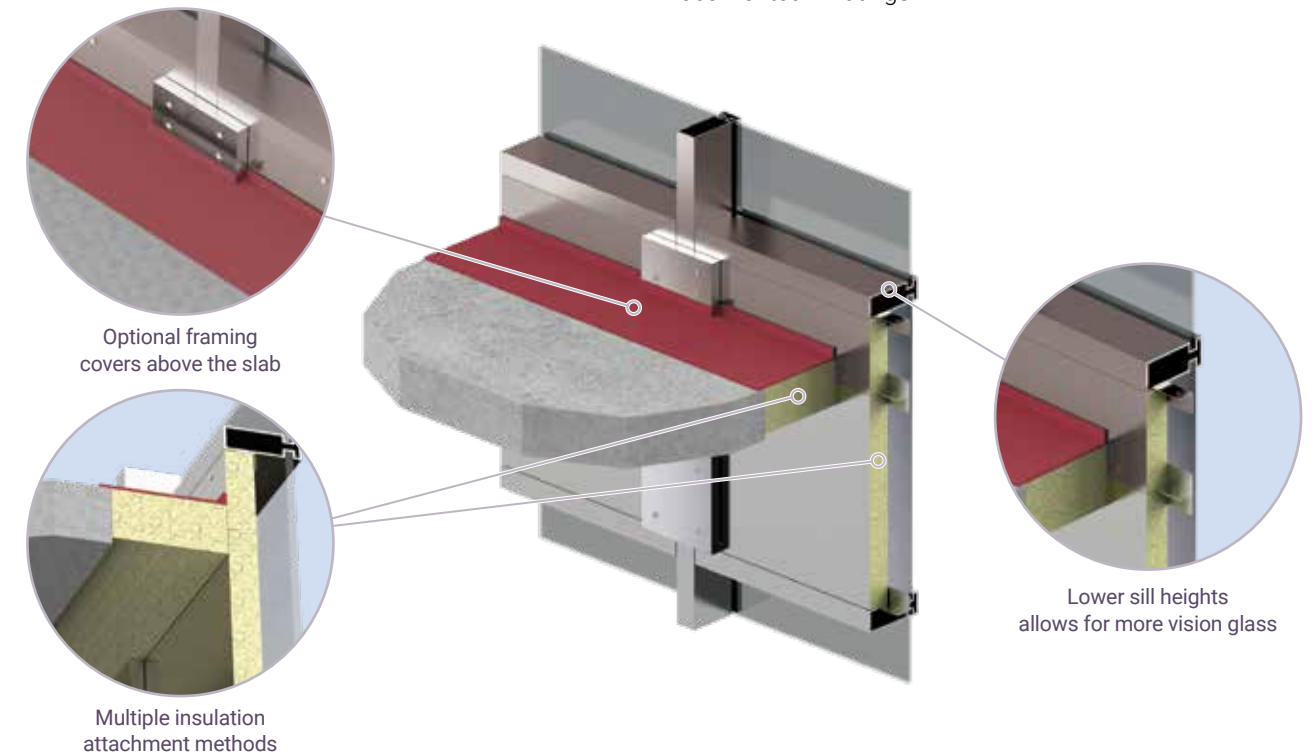


## A L U M I N U M F R A M E S

STI has the most extensive testing for aluminum framed curtain walls whether factory-built unitized or field-fabricated stick. Our UL® Certified Systems provide the flexibility you need to complete your project on time with demonstrated code compliance.

- Aluminum tube systems with solid one-piece or split two-piece mullions and transoms
- I-beam mullions
- Lower sill heights and shorter spandrel panels

- Multiple spandrel types
  - Transparent or opaque glass panels
  - Aluminum or aluminum composite panels
  - Stone
- Optional shadow box systems for transparent glass panels
- Multiple spandrel insulation attachment methods
  - Continuous steel angles
  - Hat channels
  - Insulation hangers and steel pins
- Tested by multiple insulation manufacturers
- Optional penetrations in the safing slot
- Documented L Ratings



**The Bow**  
Calgary, CAN



**Westin Hotel**  
Charlotte, NC



**The Residences at Marina Gate**  
Dubai, UAE



**FMC Tower**  
Philadelphia, PA



**1450 Brickell**  
Miami, FL



**Wilshire Grand**  
Los Angeles, CA



**1144 15th Street**  
Denver, CO



**Comcast**  
Philadelphia, PA



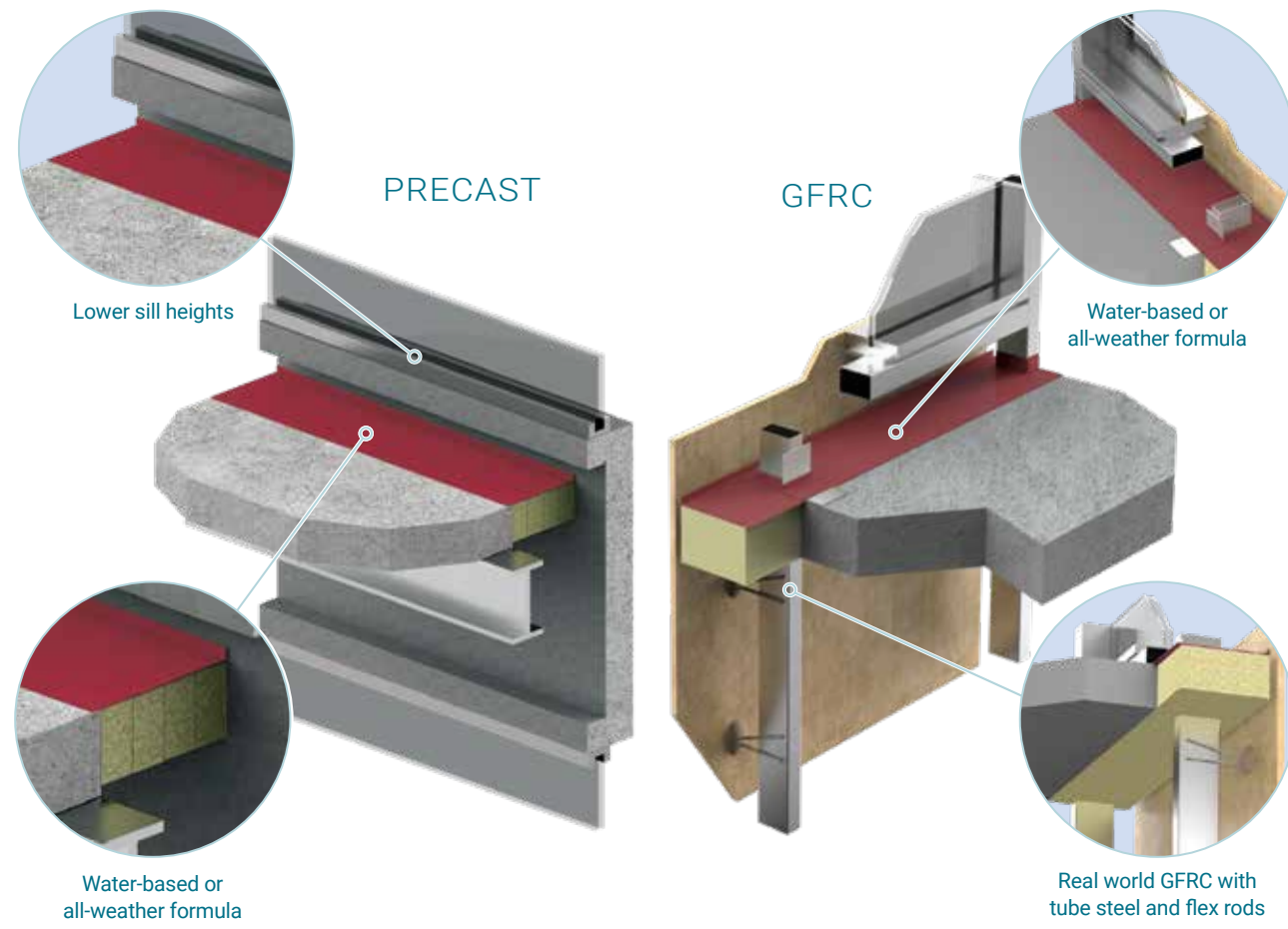
# Precast/GFRc

## PRECAST / GFRC

Coverage for precast concrete or GFRC is another one of our specialties, and our UL® Certified Systems are the most comprehensive.

- Lower sill heights for windows
- Traditional precast panels or precast composite panels (e.g. Slenderwall®)

- Real world GFRC on tube steel frames with flex rods
- Insulated or non-insulated designs
- Tested by multiple insulation manufacturers
- Documented L Ratings

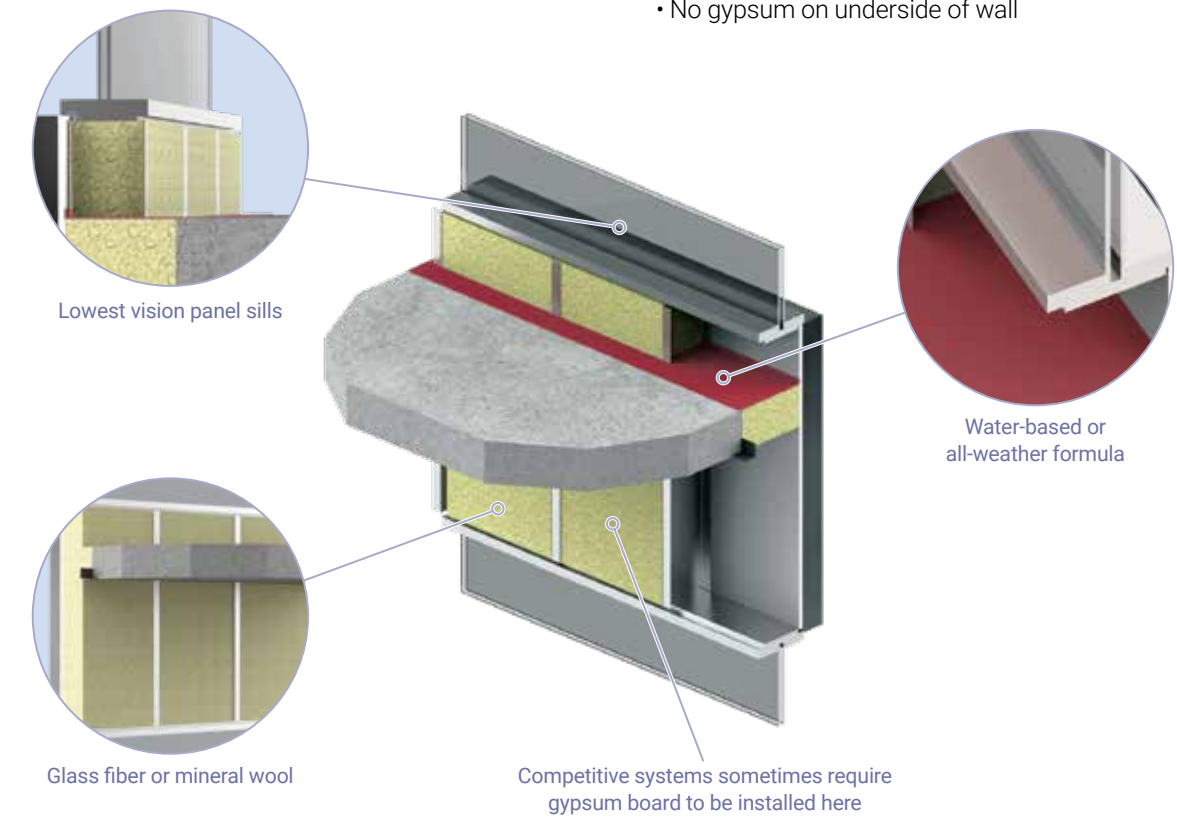


## EIFS/VENEERED DESIGNS

STI has extensive testing with steel-framed exterior walls with EIFS or a variety of different veneers, offering the very best package of UL® Certified systems for common jobsite conditions.

- Lowest sill heights for windows
- Common steel stud configurations
  - Coverage for cantilevered track conditions
  - King stud options

- Gypsum sheathing or cementitious backer units
- Multiple exterior finishes:
  - EIFS
  - Aluminum or steel siding
  - Brick veneer
  - Stucco
  - GFRC
- Glass fiber or mineral wool insulation options
- Penetrations through the safing slot
- Documented L Ratings
- No gypsum on underside of wall



# EIFS/Veneered Designs



**Stanford Medical Center**  
Palo Alto, CA



**MD Anderson's Alkek Hospital**  
Houston, TX



**30 Park Place**  
New York, NY



**Hearst Tower**  
Charlotte, NC



**FORSCOM USARC Combined HQ**  
FT Bragg, NC



**Aloft Hotel**  
Charlotte, NC



**Harrahs Cherokee Hotel**  
Cherokee, NC



**Harrahs Poydras St Hotel**  
New Orleans, LA



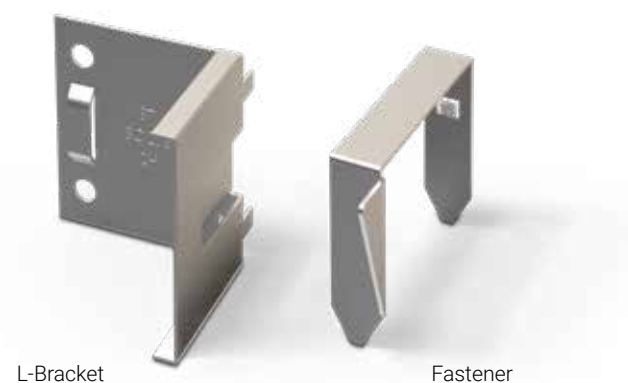
## PERIMETER FIRE BARRIER SYSTEM

### SpecSeal® Quick Clip™ L-Bracket Perimeter Fire Barrier System

**SpecSeal® Quick Clip™ L-Bracket Perimeter Fire Barrier System** is the fastest way to install curtain wall insulation for perimeter fire barrier systems. Simply fasten the L-shaped brackets to the mullion, cut and fit the curtain wall insulation, and then secure the insulation in place with self-locking fasteners. The brackets also allow the stiffener channel to be locked into place without additional mechanical attachment. This versatile system is great for factory-insulated curtain wall panels or recladding projects where the system will be installed from the building's exterior.

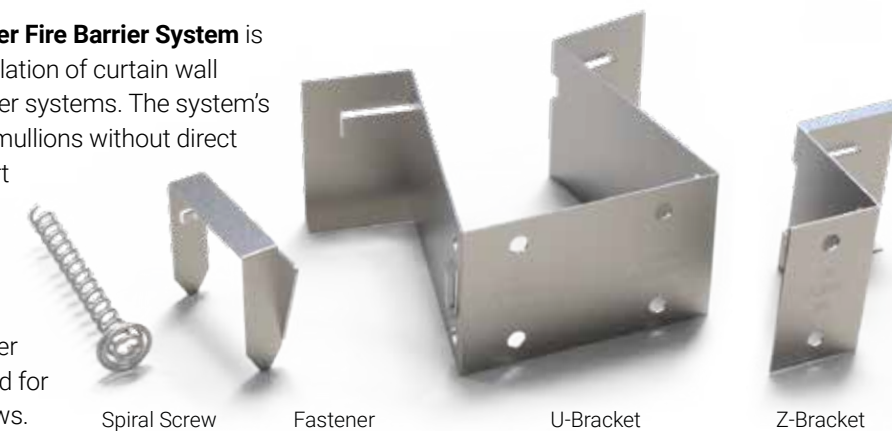
#### Features & Benefits

- Tested to ASTM E1233 for 100 MPH+ wind-loads
- All components can be installed from the glass side to make glazing easier— no more flipping units
- Meets ASTM E2307 for up to 2 hours of fire resistance



### SpecSeal® Quick Clip™ Perimeter Fire Barrier System

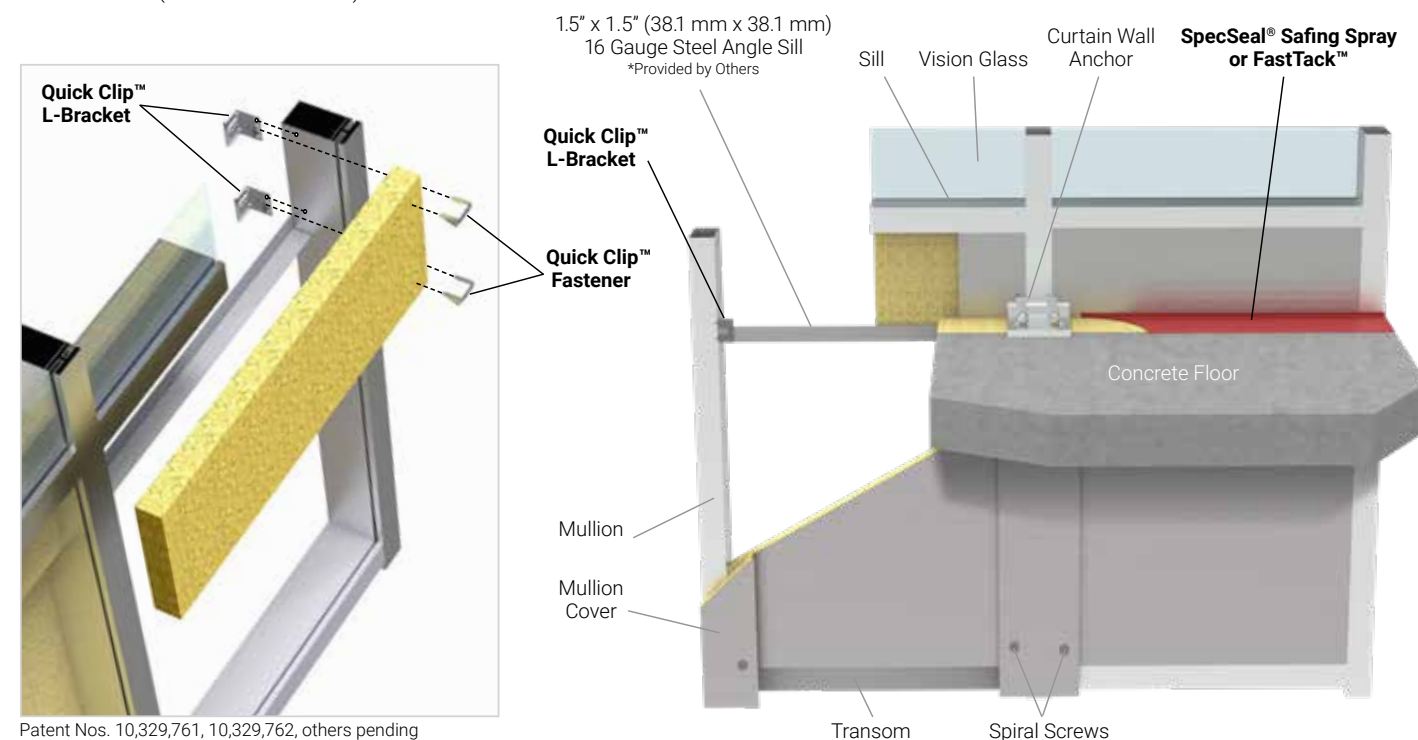
**SpecSeal® Quick Clip™ Perimeter Fire Barrier System** is designed to accelerate the installation of curtain wall insulation for perimeter fire barrier systems. The system's unique U-brackets clip onto the mullions without direct attachment by screws to support the curtain wall insulation. Self-locking fasteners secure the insulation panels in place. Each U-bracket has a receiving slot to lock an "L-shaped" stiffener channel in place without the need for mechanical attachment by screws.



#### Features & Benefits

- Tested to ASTM E1233 for 100 MPH+ wind-loads
- Reduce or eliminate use of steel screws into framing members
- Tested for up to 2 Hours of fire resistance when tested to ASTM E2307

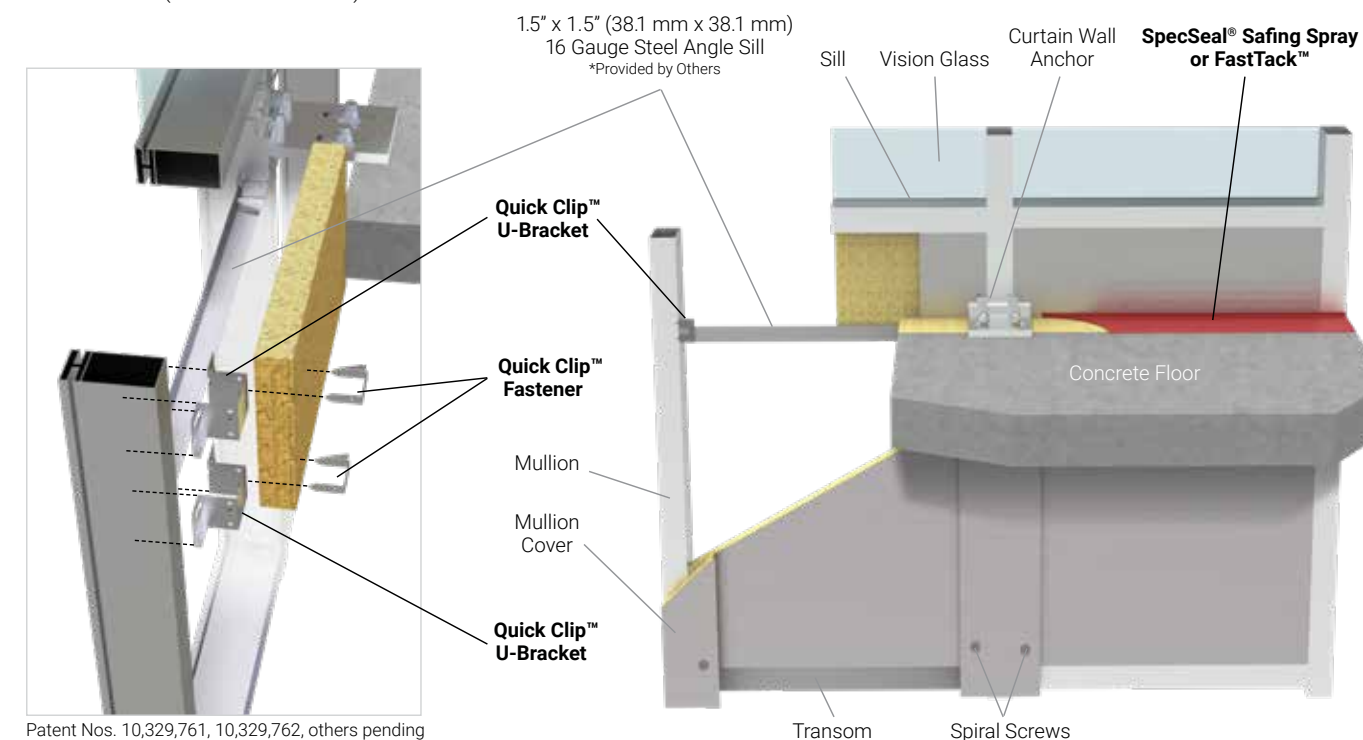
**Quick Clip™  
Perimeter Fire Barrier System  
Exploded View**  
(shown from exterior)



Patent Nos. 10,329,761, 10,329,762, others pending

**Completed field installation**  
(some components installed by others)

**Quick Clip™  
Perimeter Fire Barrier System  
Exploded View**  
(shown from interior)



Patent Nos. 10,329,761, 10,329,762, others pending

**Completed field installation**  
(some components installed by others)

## SAFING SPRAY FOR PERIMETER FIRE BARRIERS

### SpecSeal® **SFS105** Safing Spray

**SpecSeal® Safing Spray** is a latex-based firestop spray specifically formulated for perimeter fire barrier applications. Safing Spray's formulation is the perfect balance between elasticity and hardness, curing to form a durable seal that is resistant to water and damage from construction debris. Prior to cure, Safing Spray easily cleans up with water and has extremely low VOC's to meet demanding regulatory requirements.

Safing Spray features a premium latex binder system that, once dry, is totally resistant to water and will not re-emulsify. The fast drying formula is tack free in <2 hours and completely dried through in 24-48 hours (dependent upon temperature and humidity). In the wet stage, it allows for easy cleanup with water and has extremely low VOC's to meet demanding regulatory requirements. When dry, it forms a flexible shield against spread of fire, hot gases, and smoke.

#### Features & Benefits

- Shore A Hardness of 65 per ASTM D2240
- Tough polymer designed to resist damage from construction debris
- Tested for up to 4 Hour fire resistance when tested to ASTM E2307
- Listed in over 100 UL® tested curtain wall systems



Safing Spray

## FIRESTOP SPRAY FOR PERIMETER FIRE BARRIERS

### SpecSeal® **FastTack**® Firestop Spray

**SpecSeal® FastTack® Firestop Spray** is the ultimate in weather resistant firestop sprays. FastTack®'s hybrid copolymer formula was developed to counter the stalling effects of weather while providing unmatched washout resistance and the industry's fastest tack-free times. FastTack® outperforms and outlasts all competing firestop coatings providing the most versatile protection on the market.

#### Features & Benefits

- All-weather formula
- Early rain resistance (24 Hr Exposure; ASTM D6904) PASS
- Skins over quickly to resist water
- Tack-free in 35-45 minutes @ 77°F, 50% humidity (ASTM C679)
- For use in extreme weather conditions (cold or rain)
- Cures below freezing
- Can be top coated, spray coated or flow applied
- Auto-bonds for easy touch ups



FastTack



FastTack® Firestop Spray application performing under weather conditions. Shown here completely submerged underwater.



## ELASTOMERIC SPRAY

### SpecSeal® AS200 Elastomeric Spray

**SpecSeal® Series AS200 Elastomeric Spray** is a latex-based elastomeric firestop spray for construction joints and perimeter fire barrier applications. AS200 cures to form a durable seal that resists the passage of the products of combustion while accommodating for high dynamic joint movement.

#### Features & Benefits

- Slab edge/curtain wall conditions
- Head of wall—concrete fluted deck to gypsum wall/masonry wall
- Head of wall—concrete slab to gypsum wall/masonry wall
- Control/expansion joints (wall & floor)
- Metallic pipes, steel ducts



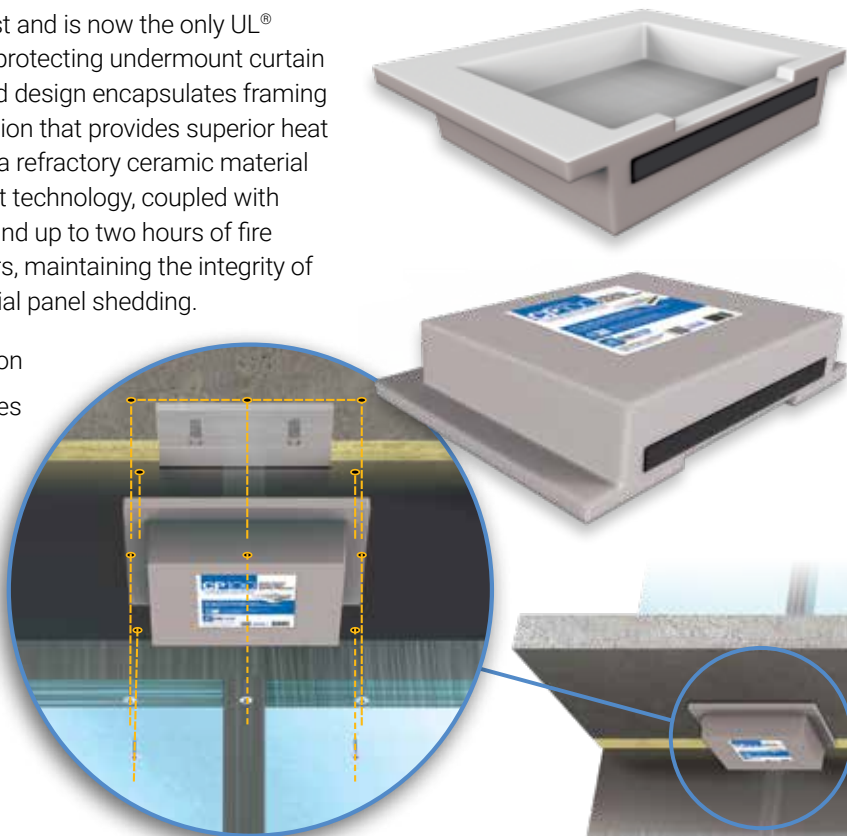
AS200

## CONNECTION PROTECTION

### SpecSeal® CP100 Curtain Wall Anchor Protection

**CP100** represents another industry first and is now the only UL® Certified System (No. CW-D-1032) for protecting undermount curtain wall connections. The patented molded design encapsulates framing connections for optimal anchor insulation that provides superior heat resistance during a fire. It's made with a refractory ceramic material that includes a proprietary intumescent technology, coupled with a compressible fiber blanket to withstand up to two hours of fire exposure, protecting aluminum anchors, maintaining the integrity of the connection, and minimizing potential panel shedding.

- Provides measurable anchor protection
- Eliminates job site application variables
- Helps ensure code compliance
- Simplifies passing inspections
- Installs in minutes with concrete fasteners
- Works with multiple anchor designs
- Encapsulates framing connections
- Offers superior heat resistance



CP100

## YOUR SUCCESS IS OUR SUCCESS

STI is dedicated to providing our clients and partners with the industry's most advanced cost-effective solutions for perimeter fire barrier systems. Whether you are an architect, curtain wall consultant, or glazing contractor, STI offers the products, training, and support to help you get it right from the onset throughout all phases of the project. Call STI to find out how we can help you with your next project.

### Prominent Curtain Wall Projects



600 Brickell, Miami, FLA



BofA Corporate Center, Charlotte, NC



1180 Peachtree, Atlanta, GA



Bank of America, New York, NY



MTB Abu Dhabi Airport, Abu Dhabi



Aldar HQ Building, Abu Dhabi



Bab Al Qasr Hotel, Abu Dhabi



State Audit Bureau Towers, Qatar



World Trade Center - West Bay, Qatar



Cleveland Clinic, Abu Dhabi



KAFCO - King Abdullah Financial District, SA



ITCC, Riyadh, SA



# Explore limitless possibilities.

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**Comcast Center**, Philadelphia, PA

