

# Building Envelope (Curtain and Cavity Wall) Products & Value Add Services









#### SPI – Specialty Products & Insulation

- Leading value-add <u>Distributor and</u> **Specialty Fabricator** of insulation materials and related products, providing industry best service to our customers and suppliers
- Supplying Mechanical and Building Insulations and value add services for Thermal, Acoustic and fire Protection requirements.
- North American operations include 54 distribution and 13 co-located specialty fabrication facilities
- Industry Reputation for Quality, Innovation and Service



provide acoustical solutions for a broad

Multifamily, Marine and OEM markets. Our fabricated products, capabilities and qualification testing allow us to offer

customized solutions to meet specific application requirements

Supplying products to industries such as: Power, Petrochemical, Iron & Steel. Aluminum, Ceramic, Pulp & Paper and

We offer Coast Guard / IMO approved hull board, pipe, duct and tank

range of Commercial, Industrial,

Refractory

Incineration.

View your Current Bill of Material.

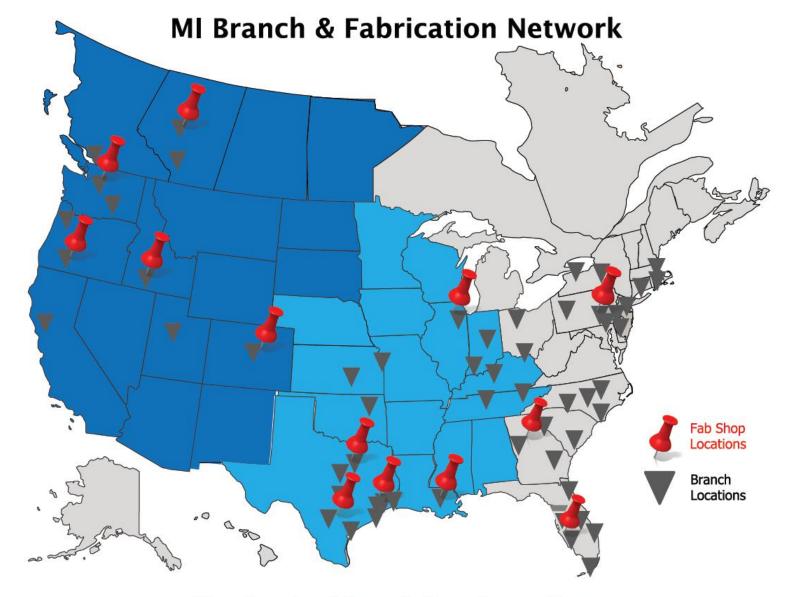
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TAF Insulation



**Mechanical Insulation Locations** 



### **Primary Building Envelope Vendors**







**Fabrication Equipment -** Band saws, shapers, routers and lamination equipment are used in our fabrication shops. CNC triple axis router, profiler etc. provide enhanced capability.















The Importance Of Proper Curtain Wall Protection

Imagine being trapped on an upper floor



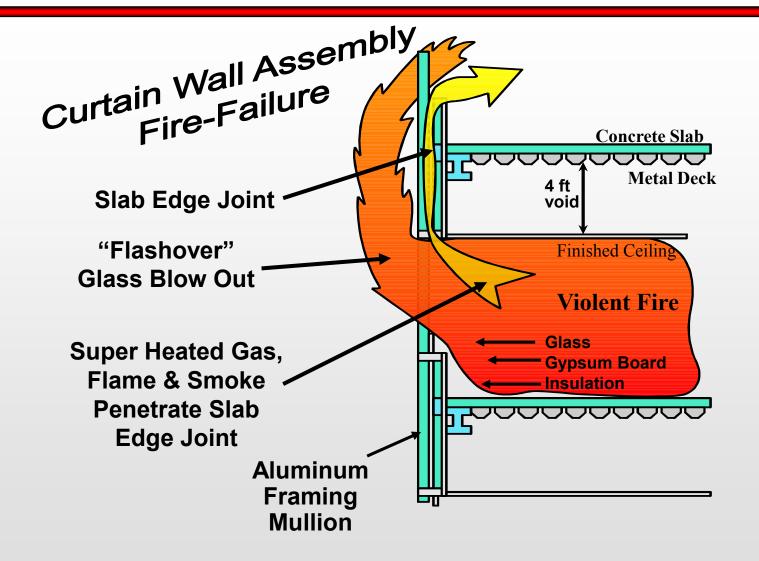
Dubai "Torch Tower"



**London Grenfell Tower** 

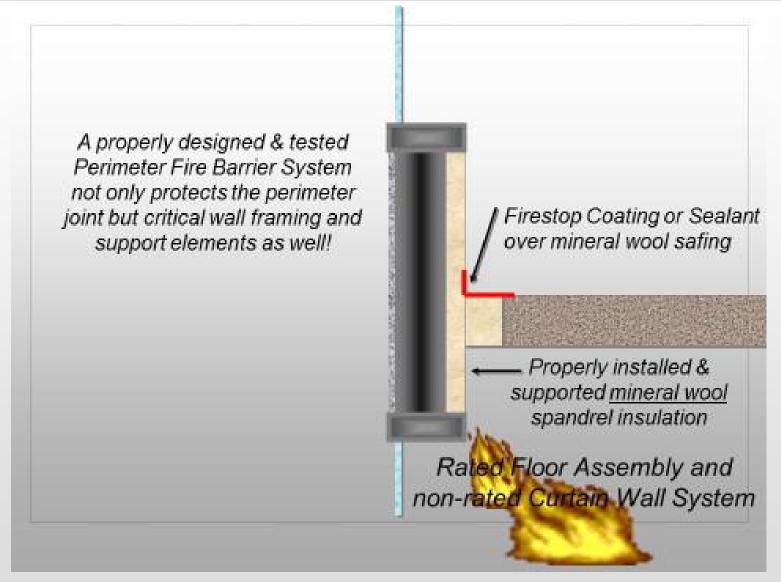
First Interstate Bank Los Angeles, CA

#### **Premature Loss of Containment**





### **Properly Installed System Components**





# Curtain Wall Assembly Fire Test

### Intermediate Scale Multi Story Fire Test, per NFPA 285







# Aluminum melts away, steel framing and curtain wall insulation left intact





Joint system intact after the test





# Galvanized Steel Angles for Spandrel Insulation Attachment Alternate Impasse hangers or 90° Insulation clips



We also offer panels w/ Hangers installed



# Typical T Bar Stiffener at Center Slab





# <u>Unacceptable</u> Safing Packing (Tightly pack correct density, thickness, with correct fiber orientation)

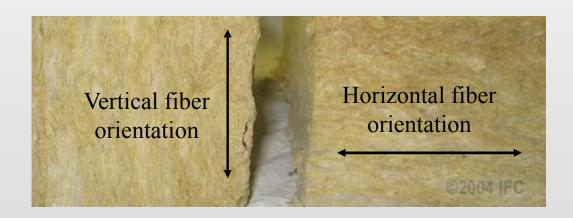


Loose, light density batt, not acceptable.



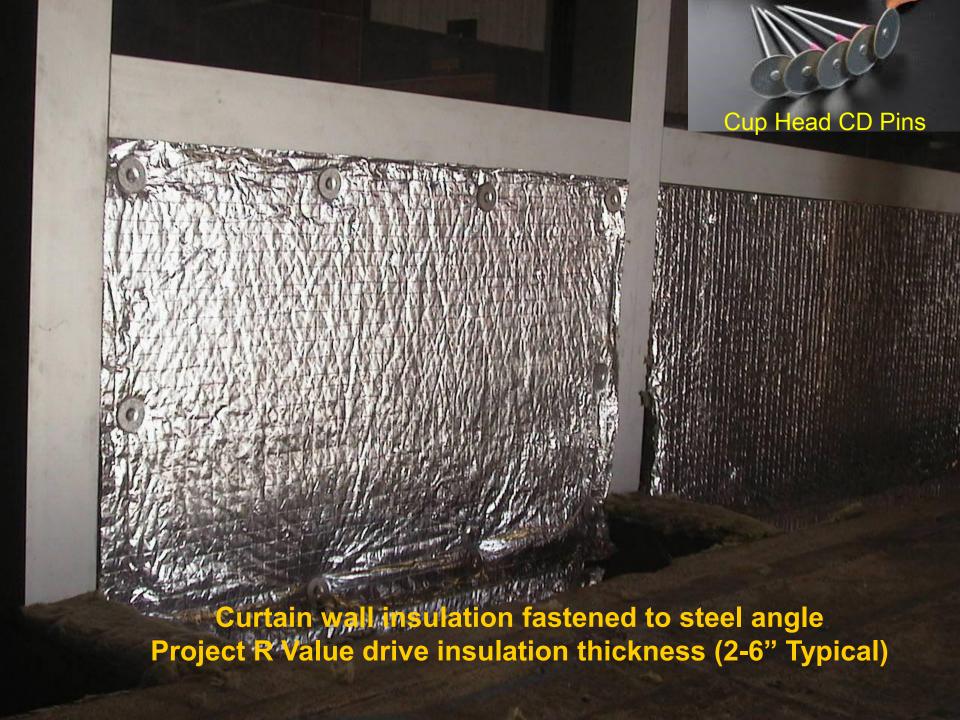
### **Perimeter Fire Containment Insulation System**

- 1. Mechanically Attached Curtain Wall Insulation
- 2. Protect Aluminum Mullions
- 3. Compression-Fit Safing Insulation w/ Safing Clips (per tested assembly details)



4lb. Safing Installed w/ Vertical Fiber Orientation





# Safing Insulation Matches As Tested Thickness, Density & Orientation





# Mullion Covers Fastened with Spiral Anchors



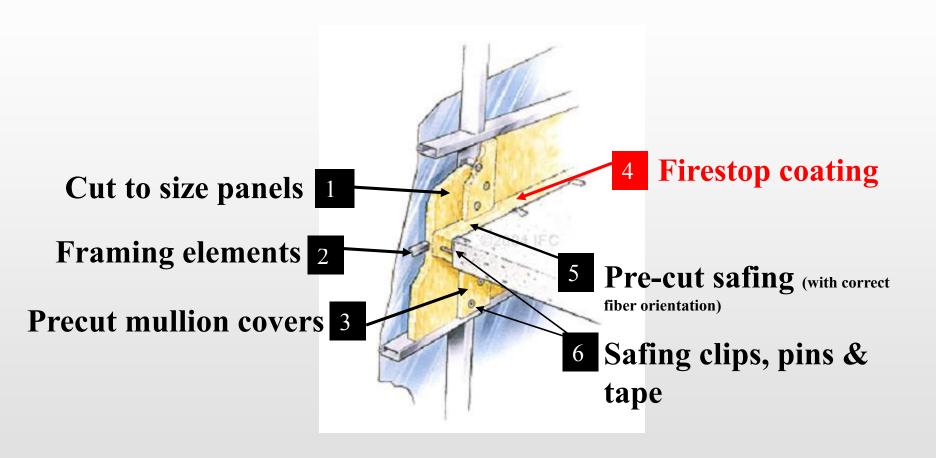


# Curtain Wall System With Mullions Protected





#### SPI Supplied Curtain Wall Products & Fabrication Service



Supplied When and Where you Need it!



# Firestop Coatings and Spray Equipment for Slab Edge Joints







# 432 Park Avenue, NY (tallest residential tower in the western hemisphere)

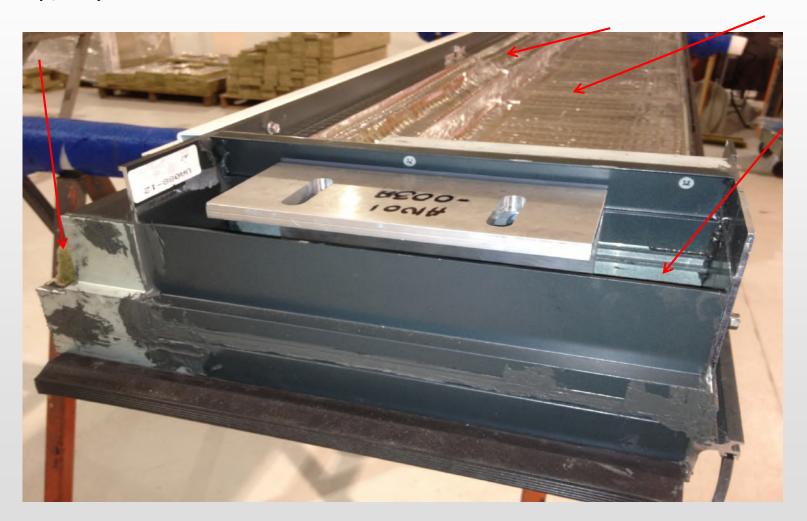


The tower at 432 Park Avenue in New York. Photograph: dbox/CIM Group & Macklowe Properties



# Shop Installed "Cut to Size" Insulation Components

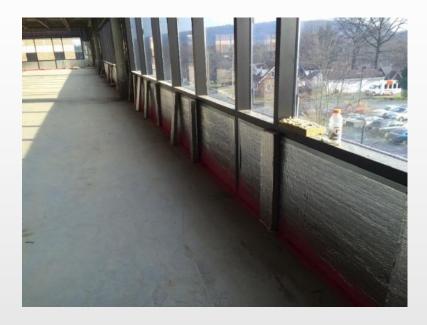
 Reduced: material handling, storage space, damage, labor cost, clean up, disposal fees and environment dust





### Field Installed "Cut to Size" Curtain Wall Insulation System

Reduces material handling, storage space, damage, labor time / cost, clean up and disposal fees





#### Curtain Wall Insulation / Safing Service Case History

Project: GlaxoSmithKline, Five Crescent Dr., Philadelphia Navy Yard Corporate Center, Philadelphia, PA Project Architect: Robert A M Stern Architects General Contractor: L. F. Driscoll Company Installing Contractor: Pyro-Stop, LLC

Project Detail: Four story 205,000 square foot steel structure with a glass curtain wall exterior, designed to achieve LEED Platinum certification, the highest designation in the sustainable building rating system.



Scott Rankin, Pyro-Stop President, reports Pyro-Stop was awarded the project because of our reputation for expert craftsmanship and ability to complete difficult projects ahead of schedule. The project schedule was very aggressive and made more difficult due to sequencing of other trades. "SPI's panel service minimized waste, reduced handling and job site cleanup as well as site material distribution time improving overall production." Our customer was extremely pleased with the installation strategy and workmanship.

Pyro-Stop awarded the material contract to SPI due to their specialty fabrication services for thermal, acoustical and fire protection materials and quick turnaround capability. SPI provided panels cut-to-size per curtain wall openings to meet an aggressive delivery schedule while satisfying Pyro-Stop's insulation budget. Exterior curtain wall panel sizes were typically five feet wide by seven feet high. The project required five inch thick insulation panels composed of eight pound density mineral fiber which would weigh over 115 pounds each. Having panels supplied pre-cut, in manageable sections made the installation easier.

Pyro-Stop Project Manager, Jim Andorko reports "We'll use SPI's Curtain wall, Safing, FirePlug® and FireStrip® insulation fabrication service on future projects. The cut-to-size and conveniently packaged materials resulted in decreased set up time and substantial productivity improvement." We also believe SPI's fabrication services will facilitate project schedule improvements, helping us secure additional work.





# Capability – Stock Sizes, Value Add Cut to Size Panels











### Mineral Wool Insulated Steel Back Pans External, Extruded Polystyrene Foam Insulated Wall Light Troffers

Steel Back Pan







Tysons Corner, VA

#### Cut to size w/routed grooves





#### **Curtain Wall Acoustic Performance**

- International Green Construction Code (Proximity to noise)
  - 1000 feet from expressway
  - 2 miles from airport
  - Average day level is 65 dB
  - Requires O.I.T.C. of 40
- OITC Rated Curtain Wall Assembly (best practice)
  - Thermal brake framing
  - Heavier glass
  - Optimized spandrel size
  - Framing insulation inserts
  - Addressed panel joint seals
  - Increased spandrel insulation thickness
  - Include composite mass vinyl barrier with insulation





## **Acoustic Specialties**

Specialty Products & Insulation

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#### Products & Services

C & I Insulation

Fabricated

GSD

Fire Protection

Acoustical

Refractory

Marine

OEM

Specialty.

Manufacturing Partners

Product Data Sheets

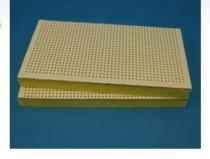
CA Proposition 65

#### **Acoustical Products**

The list of Commercial, Industrial, Marine and OEM acoustical products highlights the type of products and services available from our North American network of distribution and fabrication centers. For a complete listing of acoustical products and services, please contact a nearby <a href="SPI location">SPI location</a>. We are extremely proud to represent the leading manufacturers in the industries we service.

#### **Product List**

- Absorption Plus® Acoustical Wall Panels
- Acoustical Baffles (Link to Absorption Plus baffle datasheet)
- Acoustical Fire Batt (AFB)
- Acoustical Panels
- Acoustical Ceilings
- Acoustical Sealants
- Acoustical Foam Insulation
- Acoustical Putty Pad
- Acoustical Spray Foam
- Acoustical Accessories
- · Composite Acoustical Panels
- Curtain Wall Insulation
- Deck Plugs (fiberglass, mineral wool and elastomeric foam)
- Duct Acoustical / Thermal Insulation
- Electrical Outlet Acoustic Putty Pads
- · Fabricated Acoustical Specialties
- Fiberglass Acoustical Batt and Board
- "Imagine" Digitial Image Acoustical Panels
- Isolation hangers
- <u>Light Fixture Sound Blocking</u> Covers



- Marine Acoustical Specialties
- Mass Loaded Vinyl
- Mineral Wool Acoustical Batt and Board
- Noise Abatement Products
- PG Board TAF
- Pipe Acoustical / Thermal Insulation
- SafeLite® Sound Blocking Fixture Covers
- Sound Attenuation Batt (SAB)
- SoundSoak® Acoustical Panels
- Tectum Panels
- Theater and Conference Room Systems
- Vibration Dampening Composites

# **Special Shape Insulation Framing Inserts**



Precision Machined Shapes - Framing Inserts Provide Enhance Thermal and Acoustic Performance

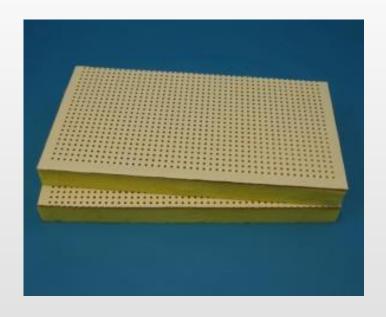




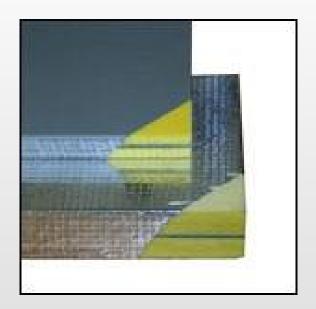


# Capability - Thermal / Acoustic Composites with Mass Barriers, etc.

Combine thermal insulation with sound absorption and barriers to dampen vibrations and block noise transmission (O.I.T.C.)









O.I.T.C. Sound Blocking, Mass Vinyl Curtain Wall Framing Components (Composites, Shapes and Cut to Size Sheet)





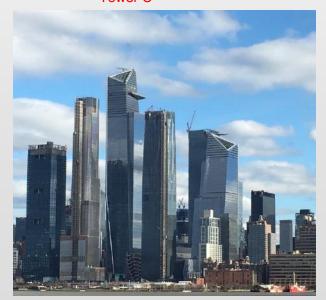


# Curtain Wall Project Examples (Small to Large)

Local Community Hospital



NY, Hudson Yard Tower C



432 Park Avenue, NY



250 South Street Pathmark





### Pre-Fab Service Adds Value (reduce injuries and claims)

- Labor shortage / skilled labor jobs are hard to fill
- The first six months of employment are most risky for injuries to new tradespeople
- Increased insurance claims
  - Shortage of experienced trade workers has led to increased on-the-job injuries and construction defects
- (Refs., Manpower Group, Liberty Mutual Construction Practice)







#### **<u>Custom</u>** Project Materials When & Where Needed

- Risk Management
  - Fixed vs. Variable Cost
  - Reduces Direct Labor
  - Reduces Material Usage Waste
  - Reduces Material Inventory Dollars
  - Reduces Storage, Material Damage and Delivery Charges
  - Safety, Risk Management Reduced Injury, Accidents, Claims and Insurance Costs

Adding "Measurable" VALUE!





# Cavity Wall Insulation (stock and cut to size panels)







# **Typical Customers**

- CW Fabricators and Erectors
- Glazing companies
- Thermal Insulators
- Drywall Contractors
- Firestop Contractors
- GC's that self perform



#### Fire Protection Products



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#### **Products & Services**

C & I Insulation

Fabricated

GSD

Fire Protection

Acoustical

Refractory

Marine

**OEM** 

Specialty

Manufacturing Partners

**Product Data Sheets** 

CA Proposition 65

#### **Fire Protection Products**

A distributor and fabricator specializing in passive fire protection products, Specialty Products and Insulation offers fire rated solutions for a broad range of applications. Our specialization in passive fire protection provides you with the latest cost effective solutions from industry leading manufacturers. Together with our fabricated products and diverse fabrication capabilities we provide superior solutions that save time and money!



Fire Protection Line Card
Curtain and Cavity Wall Products and
Services

#### Fire Protection Applications:

- Penetration and construction joints
- SafeLite® UL listed light cover
- FirePlug® /FireStrip®
- Curtain wall
- Kitchen exhaust, grease duct
- · Clothes dryer duct
- Return air plenum
- · Conduit and cable tray
- · Structural fire proofing
- Fire retardant coatings
- · Access doors and roof hatches
- Tools and equipment

#### Fire Protection Services:

SPI provides the following services in conjunction with partner manufacturers.

- Training programs for contractors, facility maintenance, architects, engineers, building inspectors, code officials and insurance Industry representatives
- Submittal assistance
- Secure engineering judgments for unusual conditions
- · Product comparison and equivalency evaluation
- Job site support

SPI is a member of the International Code Council. National Fire Protection Association and Firestop Contractor International Association





## "Value Add" Services



#### **Curtain and Cavity Wall Products and Services**

- Supplying "cut to size" panels, shapes, and more for major labor savings
- · Delivered when you need it
- Composite acoustical systems include: Mass loaded vinyl for increased O.I.T.C.
- Specialty facing laminations
- UL Certified Firestop systems
- System fasteners (pre-installed), safing clips and tapes
- Related framing components: angle, hat channel, T bar, etc.
- Firestop spray pumps, pin welders and related tools
- Personnel protective equipment





Serving Curtain Wall & Back Pan Fabricators, Insulators, Glazers and Firestop Contractors

Our PG Board TAF™ Satisfies Code Requirements for Parking Garage and Other Applications

Call (855) 519 - 4044 Or email Fabteam@spi-co.com

