Firestop Solutions for Modular Construction

STI
Specified
Technologies Inc.

FIRESTOP

We are Focused on Modular Construction.

When it comes to code compliance and life safety requirements, modular-built and on-site-built construction are the same. Off-site construction, however, does present its unique challenges.

Specified Technologies is working hard to develop solutions designed to take advantage of the efficiencies of the factory-built environment while achieving a robust design to overcome the rigors of transportation and final assembly. We routinely work with modular design teams to resolve project-specific firestop issues in the design phase and value your input to achieve ideal solutions to meet your needs.
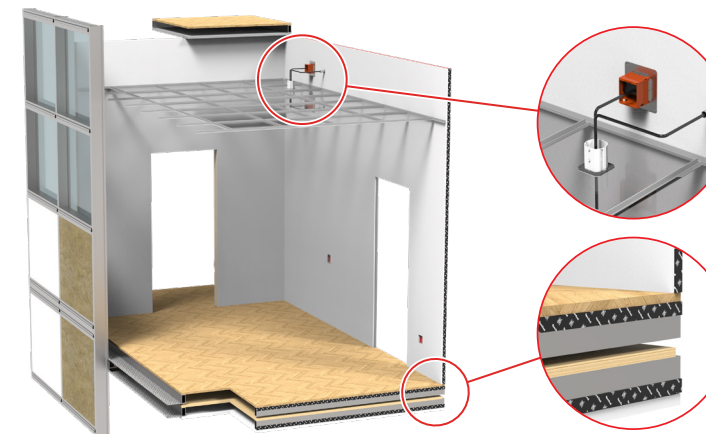
Challenges and Solutions

Modular building is rapidly becoming the preferred method of constructing many of today's structures. No longer a futuristic vision, we are witnessing everything from single-family residences to rapid expansion healthcare units, college dormitories, and high-rise hotels appearing worldwide. Firestopping for code compliance and life safety preservation is just as critical for modular construction as for traditional construction, regardless of occupancy. Since 1990, Specified Technologies Inc has developed firestopping solutions for almost every application imaginable, providing

3rd party Tested Systems to meet the design community's demands and installers alike. STI is focused on fulfilling the unique challenges in Modular Construction to ensure durable compliance from the factory to site. We understand the challenges you face in the modular industry, and we are excited to be your strategic partner by:

- Continued participation as a proud member of the Modular Building Institute (www. modular.org)

- Consultation to coordinate all aspects of firestop selection throughout the design and construction process

- On and off-site support for your design team by our industry-leading engineering services team

- In-depth training at your fingertips through our Firestop University online experience, including AIA accredited courses.

- Guidance in the factory or in the field to ensure proper installation of firestop materials ensuring code compliance.

- Giving you a voice in developing solutions for challenges unique to you.
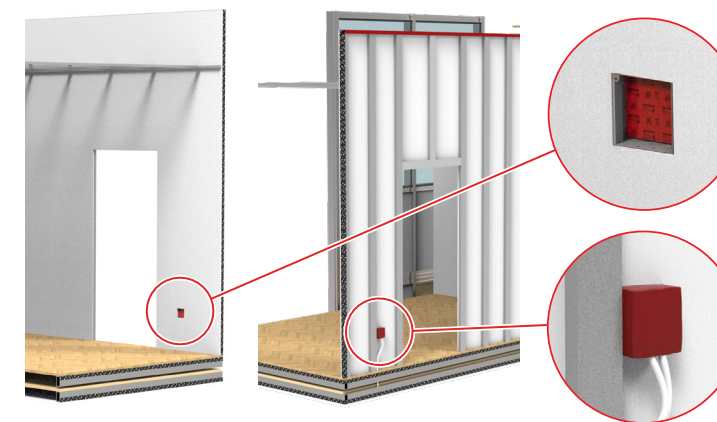
Modular Building Firestop Applications

Cable and edge of slab protection

Wall and ceiling firestop devices for electrical wires and cables such as **EZ Path® Fire-Rated and EZ Path® Smoke & Acoustical**, as well as, Ready Sleeve, are easily installed in the factory. Modular unit matelines can be pre-firestopped in the factory and shipped directly to the building site.
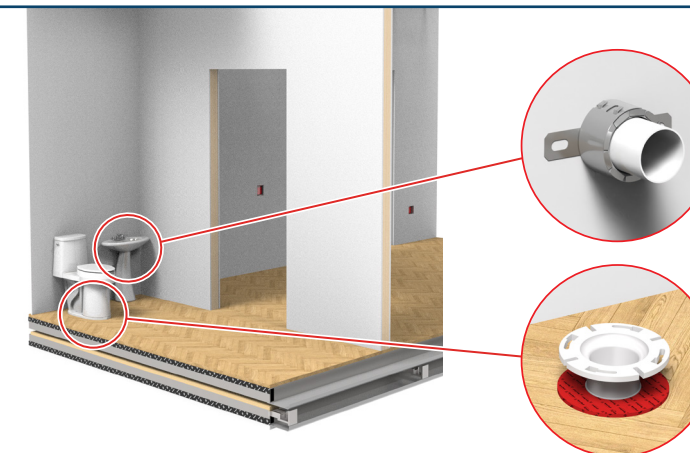
SpecSeal® SSW Wrap Strips are individually pre-sized strips to minimize waste and speed up installation.

Electrical box protection

SpecSeal® EP Powershield Electrical Box Inserts easily install within steel electrical boxes directly against the back of the box.
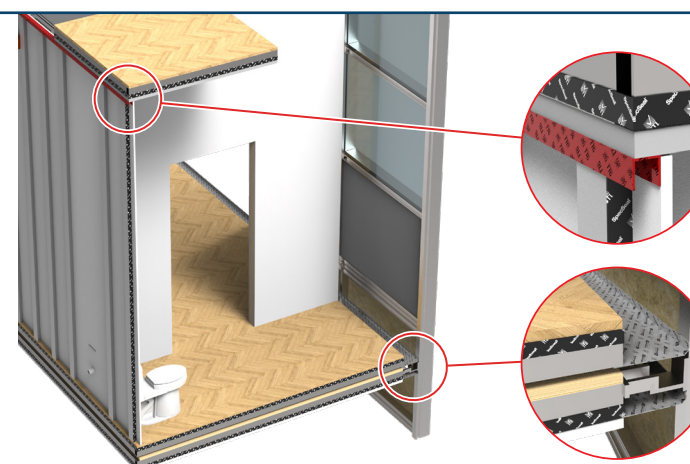
Electrical boxes can be firestopped in the factory with putty pads and electrical box inserts. **SpecSeal® SSP Firestop Putty** excels at sealing cabling penetrations and outlet boxes. It's nonhardening and easily hand works around grouped cabling.

Pipe penetration protection

Bathroom fixtures can be fully firestopped before to mounting before shipping to the site. Simplify the with **SpecSeal® Firestop Collars.**

Firestopping water closet toilet piping is traditionally performed from under the floor, creating numerous production issues. **SpecSeal® Flange Firestop Gaskets** make installation easy with a one-piece, molded rubber, intumescent pads that installs beneath the closet flange.

Head-of-wall and curtain wall protection

Firestopping head-of-wall joints is a simple process. **SpeedFlex® TTG Track Top Gasket** TTG eliminates the need for firestop sealants or sprays by firestopping as the wall is constructed and is easily cut to length with no waste.

STI is the industry leader in curtain wall fire barrier protection. We can help you develop a new system or utilize one of our many existing systems to bring your units into full code compliance.

SpecSeal® Composite Sheet is just one of our products used with other materials to make up a robust perimeter fire barrier.
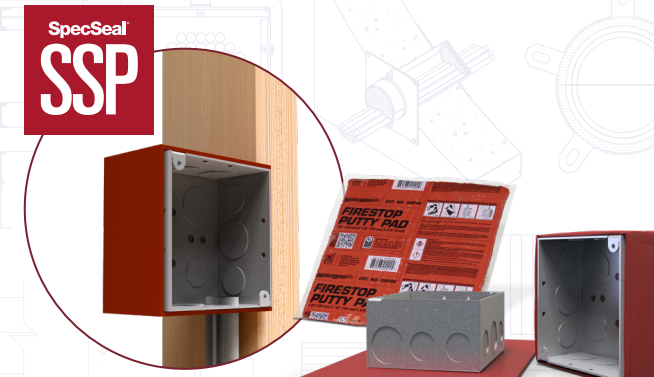
STI Products

Elastomeric Firestop Sealant

SpecSeal® ES

SpecSeal® ES Sealant is a latex-based gun grade elastomeric firestop sealant designed for construction joint applications. Once cured, ES Sealant forms a flexible shield against the passage of fire and smoke. In dynamic joint conditions, ES Sealant is tested to accommodate up to 25% compression/extension of the installed joint width.
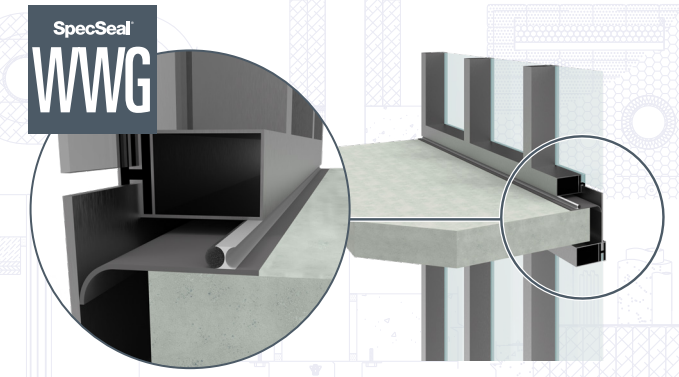
LCI Firestop Sealant

SpecSeal® LCI

SpecSeal® LCI Firestop Sealant is a water-based intumescent sealant intended for a wide range of through-penetration and construction joint applications. SpecSeal® LCI Sealant has excellent caulking properties making it easy to apply in vertical applications as well as overhead.
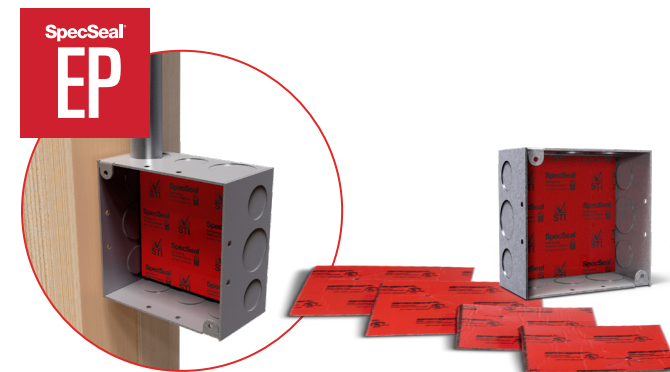
Putty Pads

SpecSeal® SSP

SpecSeal® SSP Firestop Putty Pads consist of non-hardening putty that can be used to seal the outside surfaces of electrical boxes. In addition to fire protection, they provide optimal sound attenuation.

Window Wall Gasket

SpecSeal® WWG

SpecSeal® Window Wall Gasket is an intumescent gasketing system incorporating a fiberglass inner webbing that is designed for edge of slab firestopping in Window Wall Construction. Window Wall Gasket's thin profile sits between your floor and aluminum framing; nesting behind your decorative panel exterior. Under fire exposure, the Window Wall Gasket rapidly expands to form a dense, highly insulative char.

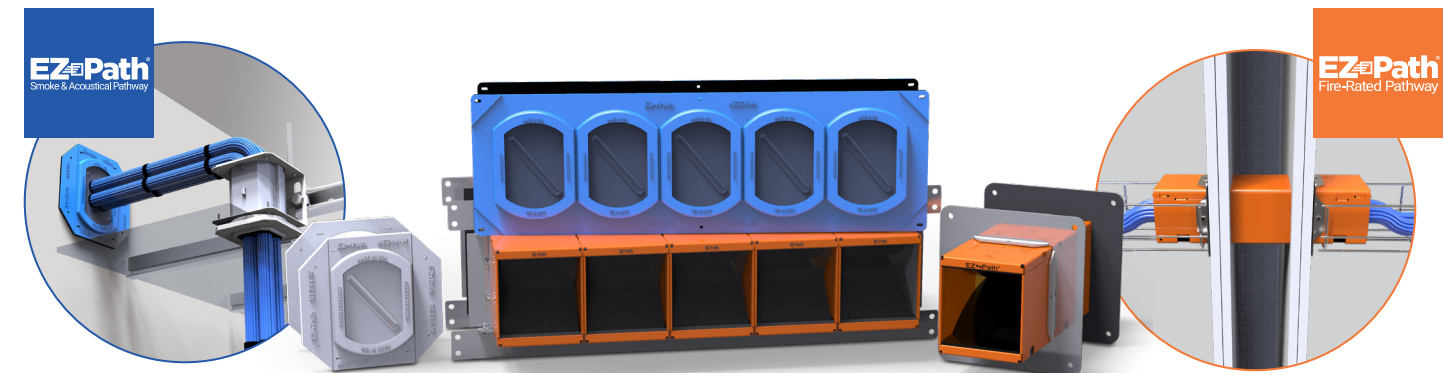## PowerShield® Electrical Box Insert

SpecSeal® EP

Electrical box inserts install inside electrical boxes to prevent the spread of fire from room-to-room. Box inserts can be installed onsite or at a fab shop so that boxes show up pre-firestopped.

E-Wrap™ Endothermic Wrap

E•Wrap EW

E-Wrap™ Endothermic Wrap is the ideal solution for fire protection of critical circuits and infrastructure such as fire pumps, signaling equipment, elevators, alarms, process control equipment, or distributed antenna systems (DAS).

TTG Track Top Gasket

SpeedFlex® TTG

SpeedFlex® TTG Track Top Gasket makes short work of construction joints in gypsum board construction. TTG eliminates the need for firestop sealants or sprays by firestopping as the wall is constructed. Track Top Gasket is easily cut to length with scissors or a sharp knife, installing quick with no waste.

Closet Flange Firestop Gaskets

SpecSeal® CF

SpecSeal® Closet Flange Firestop Gaskets are one-piece, molded rubber, intumescent pads that install beneath a closet flange to effectively firestop the opening. The die cut rubber gasket is perforated to delineate removable inserts sized to accommodate various outer diameters of toilet flanges.
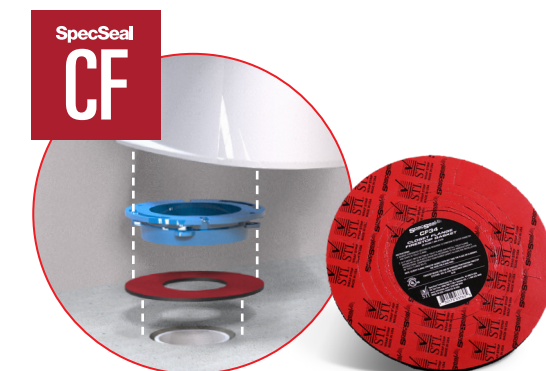
EZ⊒Path®

EZ Path® Smoke & Acoustical Pathways

Designed for easy installation in non-rated floor, ceilings, and walls, EZ Path® Series 33NEZ and Series 44NEZ Smoke & Acoustical Pathway provides exceptional cable capacity with tested and approved cable capacities ranging from 0 up to 100% visual fill.

EZ Firestop® Grommets

EZ-Firestop® Grommets make sealing penetrations of individual and small bundles of cables through gypsum board walls a snap. Molded from premium plenum-plastics and incorporating a soft foam inner core, EZ-Firestop® Grommets eliminate the need for sleeves, firestop putties & sealants.

EZ Path® Fire-Rated Pathways

The EZ Path® Series 22, 33, and 44+ Fire-Rated Pathways are designed for cable volume conditions through fire-rated walls and floors while eliminating the burden of ongoing maintenance. Series 22, 33, and 44+ all incorporate self-sealing intumescent pads that automatically adjust to the installed cable fill without the need for user manipulation. Under fire exposure, the intumescent pads expand and swell resisting the passage of smoke and flame.

ACCESS STI

These powerful tools guarantee the right systems are selected for the fastest and most cost-effective installation for all your projects.

One Key. All Access.

BMP® BARRIER MANAGEMENT PROGRAM

Guide Specs

Access Guide Specifications for products or solutions for common Firestop issues. STI offers easily editable Word formats for use in the creation of project specifications. Each Guide Spec includes only language and firestop products relevant to that division and can be used as is or as additional language to include in an existing specification.

The Firestop University

The Firestop University gives you access to all of STI's learning material and product tutorials.
• Receive instant notifications whenever new content is added
• Get immediate score feedback after successfully completing the assessment
• Mobile device compatible
• Earn "Blue Bucks" that can be redeemed for gift cards

System Search & SUBMITTAL BUILDER®

• Find firestop systems on your phone, tablet, or the web
• Streamlined firestop system submittal package
• Integrate user documents and company logos
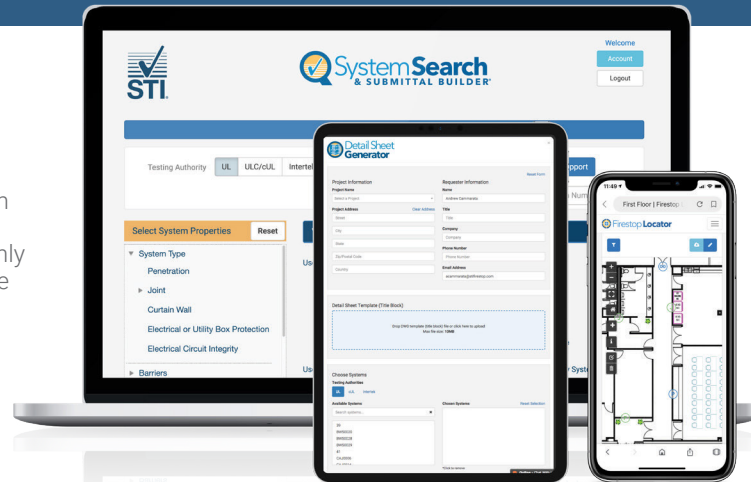• Embed engineering judgement documents

Firestop Locator

Construction documentation requirements have exploded. Whether reports are necessary to fulfill contract obligations or data is being used internally for quality control and management purposes, tracking and reporting methods are essential. Firestop Locator provides a method to simplify firestop documentation.
• Interactive floor drawings
• Track penetrations, joints, doors, dampers
• Mobile device compatible
• Streamline the Firestop tracking process
• Add team members to any project
• Turn-key solution with pre-printed QR labels
• Generate detailed reports (PDF and Excel®)

LEED® Credit Calculator

Generate a Customized LEED® Credit Letter for submission in any project.

Engineering Support SERVICES

The largest resource of firestop experts in the industry under one roof that deliver solutions in 24 hours*:
• Engineering judgments
• Technical inquiries & LEED letters
• Custom firestop training
• Specification review
• Project plan review
• Building Information Modeling (BIM)
• Documentation for AHJ's

BIM OBJECTS

STI Firestop offers BIM objects for architects and engineers to import into building models. Developed using Autodesk Revit®, these objects offer a quick and effective method to integrate firestop into your complex building design.
• Penetrations
• Construction joint
• Curtain wall
• Smoke & Acoustical

FCM FIRESTOP CLASH MANAGEMENT

A powerful plugin for AutoDesk Revit®. The FCM (Firestop Clash Management) plugin uses clash detection to find locations where penetrants meet fire-rated barriers and automatically selects the appropriate firestop systems. It removes the complexity of designing firestop systems and ensures that when it comes time for construction, the systems selected provide the fastest installation and best installed cost.

Detail Sheet Generator

Generate a selection of firestop system details on a CAD detail sheet.

UL® System Matrix Schedule of Approved Firestop Systems

Modular MEP

System Number	Details	Barrier Rating	Products
CAJ1080	Max 30" Steel or Iron pipe, max 6" Copper pipe or tube, max 6" conduit,or max 4" EMT. Caulk only.	3 Hr Max	SSS Intumescent Sealant, LCI Intumescent Sealant
FA2216	PVC or ABS toilet flange. 3" & 4" PVC or ABS pipe. Min 2-1/2" concrete. Closet Flange Gasket. Water Closet 50 Pa	2 Hr Max	Closet Flange Firestop Gasket
WL1222	Max 8" steel or iron pipe, 4" copper pipe/tube, 6" conduit, 4" EMT, 4" flexible conduit, or 1-1/4" flexible pipe. Angled penetrant option. Caulk only.	2 Hr Max	LCI Intumescent Sealant
WL3171	Single Electrical, Telephone or Data Cable, Armored Cable or Metal Clad Cable. Caulk only.	2 Hr Max	LCI Intumescent Sealant
WL5121	Max. 6" steel or iron pipe, 4" copper pipe/tube with max 2" thick fiberglass or mineral fiber. Caulk only.	2 Hr Max	LCI Intumescent Sealant
WL7025	Max. 100" x 100" (2.54 x 2.54 m) Steel Duct. Steel retaining angles. Caulk only.	2 Hr Max	SSS Intumescent Sealant, LCI Intumescent Sealant, LC Endothermic Sealant
WL7026	Max. 24" (610mm) diam Steel Duct. Caulk only.	2 Hr Max	SSS Intumescent Sealant, LCI Intumescent Sealant, LC Endothermic Sealant
WL8003	Multiple max 3" steel, 2" iron or copper, 3" conduit/EMT, 2" PVC (closed). Optional 1" fiberglass. Cables. Caulk & Backing. Rectangular hole.	2 Hr Max	SSS Intumescent Sealant, LCI Intumescent Sealant

Modular Construction Joints

System Number	Details	Barrier Rating	Products
STI-BPF 120-04	Aluminum framed hybrid window wall incorporating aluminum/stone/aluminum composite/metal composite/ insulated steel or aluminum backpan decorative panels.	2 Hr Max	Window Wall Gasket
HWD0079	Gypsum wall to concrete slab. Max 3/4" joint. Optional bond breaker tape. Optional sound isolation clips. 1 & 2 HR. Caulk only.	2 Hr Max	ES Elastomeric Sealant
HWD0689	Gypsum wall to concrete slab. Max 1/2" joint. 100% compression or extension. Top Track Gasket. 1 & 2 Hr.	2 Hr Max	SpeedFlex® Track Top Gasket

Modular Data

System Number	Details	Barrier Rating	Products
WL3255	Telephone or Data Cables (max 100% visual fill). EZ Path 22.	2 Hr Max	EZ Path® 22
WL3379	Multiple Electrical, Telephone or Data Cables. Firestop Grommet.	2 Hr Max	EZ Firestop® Grommet
WL3378	Multiple Electrical, Telephone or Data Cables. Firestop Grommet.	2 Hr Max	EZ Firestop® Grommet
WL3377	Electrical, Telephone or Data Cables (max 100% visual fill). EZ Path (Series 22, 33, 44, 44+). 1, 2, 3, & 4 Hr.	2 Hr Max	EZ Path® 22, 33 44+

Modular Electrical

System Number	Details	Barrier Rating	Products
CLIV	Electrical Boxes	2 Hr Max	EP PowerShield® Electrical Box Insert, SSP Putty Pads
STI AF 120-01	Circuit Integrity and Utility Boxes	2 Hr Max	E Wrap™