

# FIRESTOPPING NEWS

FOR COMMERCIAL CONSTRUCTION

CASE STUDY

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## STI Firestop Products Chosen for New LEED-Certified Hearst Tower in NYC

### *Environmental Considerations a Major Factor in Decision*



Photo courtesy of Michael Ficeto/The Hearst Corp.

The \$500 million Hearst Tower is a 46-story tower of gleaming diagonal glass-and-steel grids built on top of the reconstructed 1928 six-story stone Hearst headquarters building in New York City. Home to 2000 Hearst employees, it is expected to be the first occupied office building in New York City to earn a gold Leadership in Energy and Environment Design (LEED) rating from the U.S. Green Building Council — the recognized U.S. standard for building sustainability. For employees and visitors alike the design means a healthier, more inviting and more productive working environment.

Hearst made a conscious choice at the outset of the tower project to make environmental considerations a major factor in every single decision. When it came to firestop products this meant specifying products that met exacting LEED standards.

#### **Firestopping and Indoor Air Quality Meet**

The unique curtain wall design of the building required some additional firestop spray measures in order to maintain air quality and provide a secondary level of protection. According to Dave Augello of Specified Technologies, Inc., (STI) the manufacturer of firestop products, "The architect wanted to encapsulate the building from errant fibers and this required a total encapsulation of the insulation at the slab edge."

Robert Guerrero, President of RSG Caulking and Waterproofing, Inc., explained the process, "Normally where the curtain wall meets the concrete slab edge, we compress mineral wool fire safing into the gap between the slab edge and the curtain wall. We then spray on a firestop sealant to create a fire and smoke seal. The sealant encapsulates the insulation from the topside but it remains exposed on the bottom side and is visible from the floor below. For the tower project, however, we were required to spray the underside as well to totally encapsulate the insulation."

This required not only dexterity but also a product that would not drip during the process. "It was an upside down application," continues



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Guerrero, "When you spray something in an upward direction there is more risk of dripping. We used STI's SpecSeal® AS205 firestop spray to encapsulate the insulation and there was minimal dripping. It held up very well in the underside application."

### Met Low VOC Requirements

SpecSeal AS205 firestop spray was especially suited for the environmentally conscious building that wanted to minimize substances that produce vapors or deplete ozone. "At 20 g/L, the spray's volatile organic compounds are well below the 250 g/L limit for LEED qualification — and it contains no solvents," says Augello. The non-halogenated, latex-based, highly elastomeric spray has excellent non-sag characteristics for overhead spray applications and is engineered to adhere to virtually all construction surfaces.

### Good Cure Time is Essential

Prior to selecting the AS205 spray, RSG tried using other manufacturers' products that were suitable for the same application. One of the problems, however, was the cure time. "In our opinion, the STI product has a better cure time," says Guerrero. "When a product is sprayed, it is essential that it sets up fast. If it doesn't, you run the risk of damage with different trades walking around. And, if water gets in the building during construction it could wash out the product. We were happy with the cure time of the STI product."

### Sealed Perimeter of Every Seven Floors

RSG used another STI LEED-qualified product called Fast Tack™ firestop spray to seal the entire perimeter of the building every seven floors. "Fast Tack really lived up to its name," says Guerrero, "It cures much faster — generally a same day cure. And, because it cures completely and fast, we were able to keep the floors underneath watertight. Once the floors were watertight, we could go in and spray the joints without worrying about water getting in and washing out the product."

Fast Tack™ spray is an elastomeric single component silicone/urethane hybrid spray that is capable of direct water contact within 45 minutes of installation. "Unlike water-based sprays," explains Augello, "Fast Tack cures in the presence of atmospheric moisture to form a durable, flexible, water-resistant shield against fire, smoke and combustion by-products. It excels in curtain wall safing gap applications."



Applied to the top and bottom sides of the curtain wall safing, SpecSeal® AS205 spray encapsulates the insulation and creates a fire and smoke seal.



SpecSeal® AS205's unique viscosity characteristics allowed it to be applied to the underside of the safing and floor with minimal dripping.

### Assistance and Support Made a Big Difference

RSG has used STI products in numerous projects. "We've been using their firestop caulking for over 10 years," says Guerrero. Commenting on STI's technical support, Guerrero says "STI's assistance and involvement in the project is the best in the industry. On the tower project, they were very much involved in checking the work and providing us with technical assistance and support. We were 100% satisfied with the assistance we received."