



# STRAIGHT FROM THE SOURCE: SUPERLITE I-XL INFORMATIONAL BULLETIN

SuperLite I-XL record sales figures, the continuing specification and use of our patented product by the U.S. government for over 10 years, and ongoing product approval by authorities having jurisdiction throughout the United States are a few good reasons why one of our most avid competitors continues to use scare tactics by publishing unfounded SuperLite I-XL product alerts and misleading SuperLite I-XL informational bulletins.

We're delighted that a growing number of architects, code officials, building inspectors, and contractors are realizing that both the directional and non-directional radiant heat protection and superior impact safety provided by SuperLite I-XL are more important to life safety than simply passing a hose stream test.

## **WHAT THE HOSE STREAM TEST IS NOT**

### **It is NOT a sprinkler test.**

Glazing that does not survive the hose stream test can survive potential thermal shock from sprinklers since these are two very different scenarios. In the hose stream test, the glazing is exposed to temperatures of over 1638 F for 45 minutes. In a real fire, sprinklers activate at about 165 F, which is within a few minutes of the fire's initial outbreak. Sprinkler discharge at these relatively low temperatures virtually eliminates the threat of thermal shock.

### **It is NOT a demonstration of safety.**

The NFPA 257 (Fire Tests of Window Assemblies) hose stream test **allows for a 30% loss** of glazing around the perimeter of the test unit **and a 5% loss** at the center. How does this void in coverage aid in containing smoke and flames?

### **It was NOT intended for non-structural elements.**

The hose stream test was developed in the late 1800's to test the integrity of cast and wrought iron structural elements when rapidly cooled by water. There were never any windows or doors in the structural units tested that form the basis for hose stream test procedures.

### **It is NOT required for fire-rated assemblies under 60 minutes.**

NFPA 251 (Fire Tests of Building Construction and Materials), ICC model codes, and ASTM E-119 (Methods of Fire Test for Building Construction and Materials) specifically exclude fire rated construction of less than one hour from the hose stream test requirement. Why is 45-minute glazing that's limited to no more than 25% of the total wall area required to perform to a higher standard?

## **It does NOT simulate fire fighting methods.**

While the hose stream test uses fire fighting equipment, it was never intended to demonstrate the effects of fire fighting tactics on glazed assemblies. The test method stipulates nozzle size, water pressure, and requires the hose to be positioned 20 feet from the glazing. In the real world, 45-minute glazing is most often used in egress corridors measuring only 6 to 8 feet wide. No fire-rated glass manufacturer has demonstrated that their product can withstand test-method hose stream forces at these distances.

## **It is NOT required under international fire test standards.**

The U.S. and Canada are the only two countries requiring a hose stream test for fire-protective glazing. Developed countries throughout the world have abandoned the hose stream test, allowing non-hose stream tested products without any resulting failures.

## **NON-DIRECTIONAL MAKE-UPS ARE AVAILABLE**

ITS/Warnock Hersey has approved SuperLite I-XL both as a monolithic (directional) and insulated (non-directional) glazing rated up to 60-minutes.

SuperLite I-XL's reflective coating causes radiant heat waves to bounce back to the fire source. Any claim that the glass will collapse if the fire is on the non-coated side is unfounded and unsubstantiated.

## **RADIANT HEAT: THE INVISIBLE KILLER**

Invisible, electromagnetic waves of radiant heat can spontaneously ignite combustible materials on the non-fire side of walls, windows, and doors. Limiting the temperature rise on the non-fire side to any degree can help save lives and property.

Since existing U.S. codes do not require 45-minute fire-rated glazing to also provide radiant heat protection, the products most commonly used in these applications – wired and ceramic glazing – provide no radiant heat protection at all. Wired glass and ceramic products are widely used in the U.S. and Canada simply because they pass the hose stream test.

If unbearable human pain occurs at 5 kW/sqm and the spontaneous combustion of wood occurs at 12 kW/sqm, shouldn't all fire-rated glass provide at least some level of radiant heat protection?

## **THE BOTTOM LINE**

All fire rated glazing products have specific features, attributes, and limitations. Responsible competitors should not cause alarm with sensationalist language and unsubstantiated claims.

**To learn more about SuperLite I-XL, the hose stream test, and radiant heat, download our Technical Bulletin at [www.safti.com/AHJ](http://www.safti.com/AHJ).**

**For information on our complete line of fire rated glazing and framing systems, visit [www.safti.com](http://www.safti.com) or call 888.653.3333.**