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Highlights of the New – Icynene
International Code Council Evaluation Service Report
ESR - 1826

WHAT IS AN ICC-ESR?

The evaluation service report is a document issued by the International Code Council (ICC) confirming that Icynene meets the intent of the building codes. The ICC evaluation service has verified through third party testing and ongoing quality control procedures that our product is code compliant.

HOW TO USE THE ESR

The Icynene ICC-ES report is evidence that we have tested, passed and been approved by the highest code authority. Building code officials are the primary users of this report along with architects, plan reviewers, permit issuers and specification writers. Showing Icynene's ICC-ES report to these groups is both our proof and theirs that Icynene meets the intent of the codes and can be approved with confidence by the above parties.

Similar products not having an ICC-ES report have not gone through these testing and quality control procedures and may not comply with the codes.

HIGHLIGHTS OF THE ICYNENE ES REPORT

Compliance up to and including the most recent building codes: 2006 International Residential Code (IRC), 2006 International Energy Conservation Code, and 2006 International Building Code.

HIGHLIGHTS OF THE ICYNENE ES REPORT cont.

The ICC-ES report recognizes that we can spray up to 6 inches in the wall and up to 10 inches on the underside of an unvented attic roof or on the underside of the floor over a crawlspace.

Surface Burning Characteristics The International Residential Code, International Building Code and the International Energy Conservation Code all require foam plastics to have a flame spread of less than 75 and a smoke developed of less than 450. Icynene's numbers are <20 flame spread and <400 smoke developed, qualifying Icynene as a Class A or Class 1 insulation and permitting us a greater acceptance.

Thermal Resistance We now have an R-value table on the last page of the report taking the guesswork out of thermal values at a determined thickness. R-values are tested at both a 1 inch and 3.5 inches thickness. The number generated at the 3.5 inch thickness is then used to calculate R-values at all thicknesses, including the final recorded 1 inch value. This prevents manufactures from testing at 1 inch thick only; which is usually the best result, and can lead people into inaccurately assuming that multiplying the 1 inch R-value number by the number of installed inches will give them an accurate number for the total installed R-value.

Air Permeance When tested to the ASTM E283 air permeance criteria, Icynene is < .02 L/S/M², which qualifies us as an air barrier material. This qualifying air barrier result is a requirement for the unvented attic and crawl space applications. The ICC-ES reports no longer list the actual test number.

Intumescent Coatings

- Only applicable in the unvented attic and crawl space assemblies.
- Underside of roof deck need not be covered.
- Underside of floor in a crawl space need not be covered.
- Vertical walls in the unvented attic and crawl space that are sprayed at less than 3.5 inches need not be covered.
- Vertical walls in unvented attic and crawl space assemblies that are sprayed greater than 3.5 inches need to be covered with either Aldocoat 757 or Safecoat™ Latex coating.
- Firefree 88; if used, needs to cover all sprayed surfaces in the unvented attic or crawl space assembly.
- Firefree 88 is approved as a vapor barrier.

HIGHLIGHTS OF THE ICYNENE ES REPORT cont.

Traditional Attics Icynene can be used without any coating in a traditional attic assembly where the floor of the attic is insulated, up to 6 inches thick.

Fire Rated Wall Assemblies Icynene has 2 fire rated wall systems approved as 1 hour rated partition wall assemblies. Please see the ES report for details.

Floor Assembly Icynene has a 1 hour fire rated floor/ceiling assembly, please see ES report for details.

IMPORTANT - NOTE

Due to the extensive fire testing on our product our ICC-ES report does not contain the restriction of “no heat emitting appliances” in our approved unvented attic or *crawlspace* assemblies. This is important because “no heat emitting appliances” can include furnaces, air conditioners and water heaters. Many foams with an ICC-ES evaluation report have this “no heat emitting appliances” restriction in their ES reports under unvented attic assemblies *and crawlspaces*.

Older building codes are also listed in the ES report including the 2003 IRC, IBC and IECC, as well as the 1999 BOCA, SBC and UBC. This means whatever code a state uses, Icynene complies.