



ThermalStar® E119 “Hourly Ratings”

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The term “fire rated wall” can have many interpretations, but is generally related to fire separation and the ability of a wall to resist the spread of fire to the other side. Common tests to assess the approval are ASTM E119 and NFPA251, and perhaps the most popular is ANSI/UL 263, based on E119/NFPA251. The results from the UL263 testing usually yield a “finish rating” often expressed in minutes, and more important an “hourly” rating, expressed as 45 min, 1 hr, 1.5 hr, 2hr, etc.

Most walls utilize gypsum on both sides, or a combination of gypsum and concrete, to attain ratings. Often the ratings are specific for fire exposure from interior, but not exterior, or the reverse can be true. The wall can also be rated for whether it will survive the rated time and still be load bearing, or it may be a non-load bearing rating. Specific details may be required, such as joints in drywall positioned only over framing members. Underwriters Laboratories lists many wall, ceiling, and floor assemblies with variations of these many options.

Atlas EPS sheathing products (ThermalStar EIFS, X-Grade, GX Series) are expanded polystyrene rigid foam boards without facers. ThermalStar LCI is an expanded polystyrene rigid foam board with polymer film facers. These are combustible foam plastic products, tested for fire propagation (surface burning characteristics) via UL723/E84 per the requirements of the model building codes. Each product is listed by UL under BRYX.R16529 for flame spread less than 25.

Atlas EPS ThermalStar insulation is approved in 7 wall assemblies found in the UL online directory (Atlas EPS / CCVW.R16529). These include gypsum / steel stud assemblies with rigid foam plastic installed over the exterior plywood (design U326), over exterior gypsum under plywood (U460), under exterior plywood (U330), under cladding (U425), as rigid cavity insulation in a CMU / masonry veneer wall (U902), as rigid cavity insulation in a gypsum steel stud / masonry veneer wall (V454), or exposed exterior (V499).

Ultimately, the Jurisdiction Having Authority determines whether the chosen method to meet the code requirements is approved on a particular site. The type of building, occupancy, and local regulations all factor into the JAH decision.

This bulletin is current as of the date above.

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