

Thermafiber- Technical Bulletin

THERMAFIBER Safing Insulation Used with Other Types of Insulation

Exterior non-load bearing curtain walls are common on medium and high-rise commercial buildings throughout the country. In designing these buildings, it is important to recognize that most major city and all model building codes require the maintenance of the fire resistance rating of the floor at the exterior wall/floor juncture.

Thermafiber has pioneered the development of efficient and economical fire containment systems. Thermafiber Fire Safety products have unique fire-resistant and thermal insulation properties which help meet building and fire codes governing curtain wall assemblies.

Thermafiber[®] Safing Insulation and Thermafiber[®] FIRESpan Insulation provide fire containment and protection at floor perimeters. Thermafiber[®] Safing Insulation confines fires to the floor of origin by sealing the space between the slab edge and the spandrel wall. Both insulations must function effectively so that fire does not breach or bypass the floor/exterior wall juncture, thus allowing the fire to spread vertically.

Thermafiber has proven through extensive fire testing that low-melt point insulations—glass fiber and foam plastic types—do not protect the integrity of spandrel panels. In fact, in simulated fire endurance tests, these low-melt point products failed when installed in exterior wall panels extending from the sill of the window to the head of the window in the story below. The fire caused disintegration of these low-melt point insulations in only 5 minutes for polyurethane foam and 12 minutes for glass fiber insulation.

When the fire breaches the spandrel panel, the fire containment system fails. Low-melt point insulations used in combination with Thermafiber[®] Safing Insulation **negate** the fire containment performance of the Safing Insulation.

THEREFORE, THERMAFIBER CANNOT RECOMMEND THE USE OF THERMAFIBER[®] SAFING INSULATION IN SPANDREL PANEL CONSTRUCTION WITH OTHER INSULATION MATERIALS, UNLESS THE ASSEMBLY HAS BEEN TESTED FOR FIRE ENDURANCE ACCORDING TO ASTM E119 TIME-TEMPERATURE EXPOSURE AND IS CAPABLE OF PROVIDING THE REQUIRED FIRE CONTAINMENT TO THE FLOOR/EXTERIOR WALL JUNCTURE.