SECTION 07840

THROUGH-PENETRATION FIRESTOP SYSTEMS

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

All penetrations through fire rated assemblies both horizontally and vertically shall be sealed with fireproofing materials to maintain the integrity of the assembly rating. Penetrations include point of entrance, point of exit, or point of passage through the assembly.

Firestopping Systems are required for, but not limited to, the following locations:

1. Penetrations through fire-resistance-rated floor and roof construction, including both empty openings and openings containing cables, pipes, ducts, conduits, and other penetrating items.
2. Penetrations through fire-resistance-rated walls and partitions, including both empty openings and openings containing cables, pipes, ducts, conduits, and other penetrating items.
3. Openings at the top or bottom of rated partitions abutting rated floor/ceiling assemblies.

All cutting, patching and firestopping of penetrations are the responsibility of the subcontractor or trade making the penetration. Conform to UL designs for penetration material and wall assemblies being penetrated. Provide firestopping systems that are produced and installed to resist the spread of fire, according to requirements indicated, and the passage of smoke and other gases.

General: Coordinate all trades which will install firestopping materials to use products from one manufacturer/supplier on the project. Provide firestopping products containing no detectable asbestos as determined by the method specified in 40 CFR Part 763, Subpart F, Appendix A, Section 1, "Polarized Light Microscopy". Use only components specified by the firestopping manufacturer and approved by the qualified testing and inspecting agency for the designated fire-resistance-rated systems.

B. Submittals: Product Data and product certificates signed by manufacturer certifying that products furnished comply with requirements.

C. Provide firestopping systems with fire-resistance ratings indicated by reference to UL designations as listed in its "Fire Resistance Directory," or to designations of another testing agency acceptable to authorities having jurisdiction.

D. Provide through-penetration firestopping systems with F-ratings, as determined according to ASTM E 814, not less than the fire-resistance rating of the construction penetrated.

E. For exposed firestopping, provide products with flame-spread ratings of less than 25 and smoke-developed ratings of less than 450, as determined according to ASTM E 84.

PART 2 - PRODUCTS

2.1 FIRESTOP SYSTEMS

A. Any through-penetration firestop system that is classified by UL for the application and with the F-rating indicated may be used.

1. Systems or devices listed in the U.L. Fire Resistance Directory under categories XHCR (firestop devices) and XHEZ (firestop systems) may be used, provided that they conform to the construction type, penetrant type, annular space requirements and fire rating involved in each separate instance.
2. Systems or devices must be asbestos-free.
3. Systems must be symmetrical for wall applications.

B. Coordinate all trades, which will install firestopping materials, to use forming materials and firestopping products from one manufacturer/supplier on the project.

C. Acceptable manufacturers include, but are not limited to:
1. Dow Corning Toray Silicone Co. Ltd.
2. Hilti Firestop Systems.
3. International Protective Coatings Corp.
4. Johns Manville Insulations
5. Minnesota Mining and Mfg. Co. (3M)
6. Semco, A Division of Product Research and Chemical Corp.
7. Specified Technologies Inc.
8. United States Gypsum Company.

D. Manufacturer/Supplier to provide data sheet for each system proposed, by type of product penetrating fire rated construction and the fire rated construction itself.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install firestopping systems to comply with manufacturer's written instructions and with requirements listed in testing agency's directory for indicated fire-resistance rating.

END OF SECTION 07840