

Dendamix™ Retrofit Guide Specifications

DENDAMIXÔ GUIDE SPECIFICATION for RETROFIT APPLICATION

1.0 GENERAL

1.1 SCOPE

1.1.1 Work under this section includes the furnishing of labor, material, equipment and

Services necessary to and incidental to, the complete and proper installation of spray applied fireproofing and related work described in the following:

a) DENDAMIXÔ Retrofit fireproofing system installation specifications were prepared by American Sprayed Fibers Inc. (ASFI)

b) Architectural Drawings.

Exceptions:

1. Any stud bay width that is less than 3-1/2" wide.

1.2 QUALITY ASSURANCE

1.2.1 DENDAMIXÔ Retrofit installation shall be performed by a firm acceptable to the material manufacturer.

1.2.2 DENDAMIXÔ Retrofit material shall be applied by factory trained applicators only.

1.2.3 ASFI, or any ASFI certified field quality control inspector shall have immediate and unlimited access to every site at anytime during the installation process.

1.3 DELIVERY, STORAGE, AND HANDLING

1.3.1 Delivery: Material shall be delivered to the site as follows:

a) 30lb. Bags of fiber in original manufacturers' wrappings, bearing the Underwriters Laboratories (ULI), or Southwest Research Institute (SwRI) label clearly marked to identify contents.

b) 55-gallon steel drums of adhesive bearing the original A-23 labels clearly marked to identify contents.

1.3.2 Storage and Handling: Products have an unlimited shelf life and may be stored for prolonged periods of time. Bagged material must be kept dry and protected from moisture. Any bags found to be wet shall be deemed unfit for use and discarded. Barreled adhesive must be protected from damage i.e.: forklift forks. A-23 Adhesive is not affected by freezing but must be thoroughly thawed and agitated before use if freezing should occur.

2.0 PRODUCTS

2.1 MANUFACTURER

2.1.1 The fireproofing material shall be sprayed fiber type manufactured under the brand name DENDAMIXÔ Retrofit by:

American Sprayed Fibers, Inc.

PO Box 1111, Fredericksburg, TX, 78624

Tel: (800) 824-2997

mail@asfiusa.com

www.asfiusa.com

2.2 MATERIALS

2.2.1 Material shall be asbestos-free DENDAMIXÔ Retrofit Lightweight Fireproofing System and A-23 liquid adhesive.

2.2.2 Surface Burning Characteristics: When tested in accordance with ASTM E84, the material shall exhibit the following surface burning characteristics:

FLAME SPREAD...0 SMOKE DEVELOPMENT...0 FUEL CONTRIBUTION...0

2.2.3 The material shall have been tested and reported by Underwriters Laboratories, Inc. (ULI) or Southwest Research Institute (SwRI) in accordance with the procedure of ASTM E119.

2.2.4 Air Erosion: When tested in accordance with ASTM E859, material loss from finished applications shall not exceed .025g/sq.ft.

2.2.5 Corrosion Resistance: When tested in accordance with ASTM E937, the material shall not promote corrosion of bare steel, shop-coated steel, or galvanized steel. When tested in accordance with ASTM C739, the material shall not promote corrosion of copper, steel, or aluminum.

2.2.6 Fungus Resistance: When tested in accordance with ASTM C739, the material shall not support the growth of fungus.

2.2.7 Non-combustibility: When tested in accordance with ASTM E136, the material shall be non-combustible.

2.2.8 Sprayed fireproofing materials shall be free of asbestos, asbestos contaminated vermiculite, chrysolite, amosite, crocidolite, actinolite, tremolite, or antophyllite. Sprayed fireproofing manufacture shall provide written certification of no asbestos content upon request.

2.2.9 Material Density Requirements: Blown in wall cavity of 3-1/2" minimum thickness: Average Dry Density = 6# / Cu.ft. Spray applied to appropriate thickness: Average Dry Density= 7# to 12# / Cu.ft.

3.0 EXECUTION

3.1 PREPARATION

3.1.1 The general contractor shall provide 6" diameter access openings through the gypsum wall board at mid-wall and top of all wall cavities where the DENDAMIXÔ Retrofit material is to be installed and to facilitate the removal of existing batt insulation. Additional holes are acceptable to facilitate the installation as required. One access hole at the top of the wall is allowed where no insulation is to be removed.

3.1.2 All insulation material within wall cavities shall be removed by the general contractor prior to installation of the DENDAMIXÔ Retrofit material

3.1.3 Existing wall construction ambient temperature of 40 F or higher must be maintained during, and 48 hours after the application of the fireproofing. If necessary the general contractor shall provide heated enclosures to maintain proper temperatures for job progress.

3.1.4 Commencing DENDAMIXÔ Retrofit installation, the applicator accepts existing wall cavity and environmental conditions.

3.2 INSTALLATION EQUIPMENT

3.2.1 Blowing system: Equipment: Any blowing equipment approved by the manufacturer utilizing an air lock that is capable of producing the required product flow to comply with the manufactures requirements.

3.2.2 Mixing Nozzle: See manufacturer's recommendations for the nozzle directly related to the appropriate application.

3.2.3 Blowing Hoses: One and one-half inch to two-inch diameter, internal ribbed, manufactured by Smooth Bore or equal.

3.2.4 Adhesive Pump: Any pumping equipment capable of producing the required product flow and adhesive pressures to achieve proper densities to comply with manufactures requirements.

3.3 INSTALLATION METHOD

3.3.1 Material Mixture: DENDAMIXÔ Retrofit material shall be mixed approximately as follows: Wall fill: 110-30# bags to one barrel of A-23 concentrate adhesive producing a 6# dry density. Wall spray: 25-30# bags to one barrel of A-23 concentrate producing a 7# to 12# dry density.

3.3.2 Material Placement: The DENDAMIXÔ Retrofit material shall be pneumatically placed within the area separation wall cavities at the density indicated in section 1.1.1 above. The material placement shall proceed from the middle opening, bottom of the wall up, to the top edge of the middle access opening. Use the hand to push the material down to assure the cavity is full. The installation shall then continue from the top access hole to the underside of the top plate of the wall framing. Once again push the material down to insure a solid fill. The general contractor is responsible to close the access

holes using the appropriate fire-stopping methods as recommended by the architects or building codes, which may include wood blocking, and or fire sealant.

3.4 CLEANING

3.4.1 Adhesive Residue: The applicator shall be responsible for mixture of adhesive and fiber material to meet the required densities. In the event of adhesive leakage from the bottom of wall cavities or over spray, the applicator shall be responsible for the immediate and complete cleaning of the adhesive residue. Immediate and irreparable damage to glass will occur if proper preparation procedures are not followed.

3.4.2 Upon completion of the DENDAMIXÔ Retrofit installation, application equipment shall be removed and all surfaces not to be sprayed shall be cleaned of any material deposits.

4.0 RESPONSIBILITIES

4.1 The general contractor shall provide the following unless specified and agreed to by all parties prior to starting applications of DENDAMIXÔ Retrofit:

- a) Adequate electrical services to the location of the blowing system and adhesive pump.
- b) Refuse container accessible to the applicator.
- c) Potable water source accessible to the blowing system location.

4.2 The general contractor shall provide necessary drop cloths, masking and covering to protect the unit interiors from fireproofing over spray.

4.3 The general contractor shall provide access holes as appropriate and remove cavity insulation and loose obstructions where DENDAMIXÔ Retrofit is to be installed.

4.4 The general contractor shall ensure that there are no glass shower doors or other obstructions that would prevent clear access to the work area for the applicators and inspectors.

4.5 Then general contractor shall replace the gypsum wallboard using the following methods, which include but are not limited to:

- a) Installation of horizontal wood blocking to existing studs and attaching a new layer of gypsum board blocking.
- b) Offset cuts in successive layers of gypsum board for access openings and replacing gypsum with staggered joints.
- c) All blocking and gypsum board shall be attached using screw fasteners and appropriate fire sealant, which shall be specified by the project architect.

4.6 The general contractor shall keep to a minimum, impacts or vibration to the sprayed assemblies until the fireproofing application has had time to set up. Excessive vibrations such as hammering gypsum or wood blocking into place during the set up time may cause settling.

5.0 TESTING PROCEDURES

5.1 SCOPE

5.1.1 Samples of the DENDAMIX[®] Retrofit material shall be taken once each day during the application process using the ASFI density tray to determine that proper densities are being provided. The information is to be contained in a daily log that is available for review.

5.2 TESTING APPARATUS: ASFI Density Tray

5.2.1 A plastic tray with dimensions of 12"x12"x1" shall be used to determine density. The tray is to be filled with material and weighed each day to obtain a relative density sample of how DENDAMIX[®] Retrofit will perform when being injected in the wall cavity. This information verifies that the machine settings have not changed and proper densities will be provided. The information is placed in a daily log for conformation and is made available to on site quality inspectors and architects.

END OF SPECIFICATION

This specification includes 5 pages

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