

Albi DriClad

FIREPROOFING APPLICATION MANUAL & FIELD GUIDE



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INTRODUCTION

Throughout the years, Albi has earned an enviable reputation for its dependable, high quality fireproofing systems. Providing maximum protection with minimum thickness, our line of Albi Clad intumescent fireproofing materials have demonstrated their unique ability to withstand abuse, impact, vibration and adverse environmental conditions, while still continuing their outstanding performance record and aesthetic properties.

This manual has been prepared to provide you with basic information pertinent to the properties and application methods of Albi DriClad. Further, equipment recommendations and application suggestions are included to assist you and your job superintendent in proper job preparation and professional execution of work. The objective of this manual is to explain the necessary components and methods to provide the required fire protection as specified by the owner or architect.

It is your responsibility, as a competent and reputable applicator, to apply the product in accordance with ULI tests and in compliance with our recommendations. It is important that you have full knowledge of our product and its application methods in order to maintain our record of proven performance and consistent customer satisfaction. We urge your studied review of the information contained in this manual and the transmission of this same information to all personnel who will be involved in the application of Albi DriClad.

As additional information is developed, it will be forwarded to you for insertion in this manual. Should you desire additional copies, or should there be questions requiring clarification, please contact our home office, your regional manager, or Mr. Ken Walker the Product Manager for Albi DriClad.

ALBI PRODUCT DESCRIPTION

Albi DriClad is a semi rigid board manufactured from molten volcanic rock which is spun into fine threads, impregnated with a special resin and compressed to form a durable, yet easy to use material which has superior fire resistance properties. Albi DriClad is used to fireproof structural steel and is installed using Albi DriClad screws. Albi DriClad meets the fire test criteria of ASTM E84, ASTM E119, and UL263.

Albi DriClad is listed by Underwriter's Laboratories, Inc. and is designed for rapid installation to columns, beams, floor/ceiling, and roof/ceiling assemblies for fire ratings up to 4 hours. Due to its high moisture resistance Albi DriClad is suitable for application to both interior and exterior surfaces which are **initially** exposed to the weather during construction. Albi DriClad can also be used in semi exposed conditions such as parking garages.

NUMBER OF SHEETS / SQUARE FEET / GROSS WEIGHT PER PALLET PER THICKNESS

ALBI DRICLAD UL Classified Mineral Board *	Material Thickness	Material Thickness	Material Thickness	Material Thickness	Material Thickness
	7/8 inch	1.0 inch	1-1/2 inch	2.0 inch	2-1/4 inch
Sheets per Pallet	50 sheets	45 sheets	30 sheets	22 sheets	20 sheets
Total Square Feet per Pallet	1200 sq. ft.	1080 sq. ft.	720 sq. ft.	528 sq. ft.	480 sq. ft.
Gross Weight per Pallet	900 lbs.	900 lbs.	900 lbs.	900 lbs.	900 lbs.

* Other thicknesses available

EQUIPMENT RECOMMENDATIONS

Cutting

As a board material, the most efficient method for cutting is with a standard table saw. It is recommended that the saw have a dust collection system to help control any air born mineral fibers. For small jobs it may be more efficient to use a circular saw (with a dust collection unit) or even a broad knife.

Installation

The installation of the Albi DriClad requires the use of our Albi Screw system. These pig tail type screws are most efficiently installed using a cordless drill, fitted with either a #10 countersink bit or philips head bit.

Miscellaneous

For small cuts around clips, hangers, etc a thin bladed, rigid, steak knife is the most efficient.

TYPICAL APPLICATION DETAILS

PREPARATION

Albi DriClad requires no special treatment to the steel substrate. Cut boards to size with due allowance for steel tolerances and board thicknesses.

INSTALLATION SEQUENCE

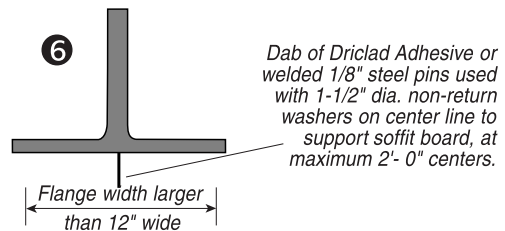
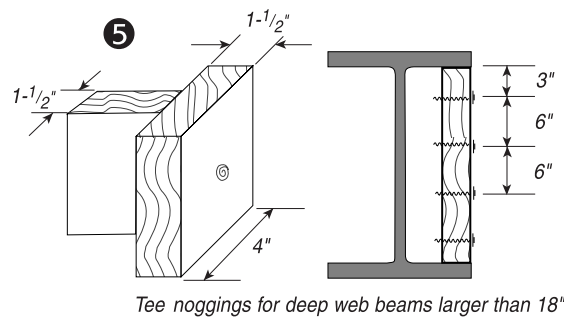
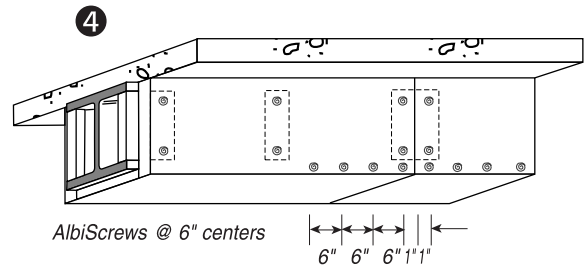
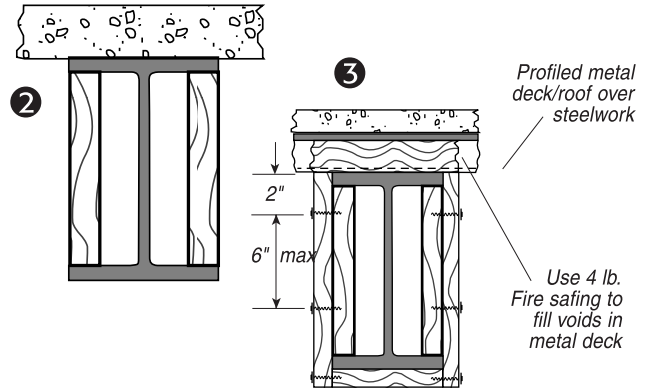
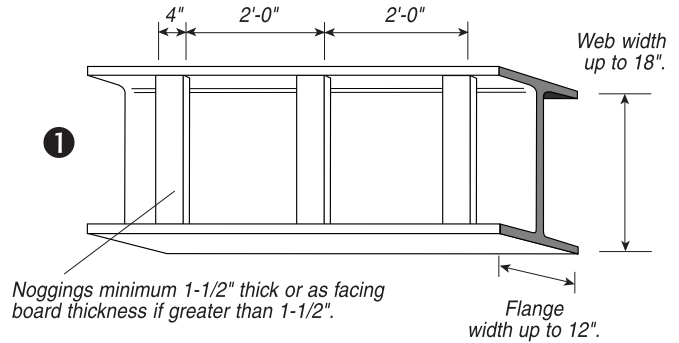
(A) Cut noggings 4" wide or more and push fit into web at 2'-0" centers as shown in figure 1. Ideally, nogging should extend slightly beyond flange tip 1/16". For beams with webs deeper than 18" use tee-shaped noggings as shown in figure 5.

(B) Cut side boards to suit depth of steel section plus thickness of fireproofing board. Install DriClad boards using two AlbiScrews at each end and at each intermediary nogging. (See figures 3 and 4)

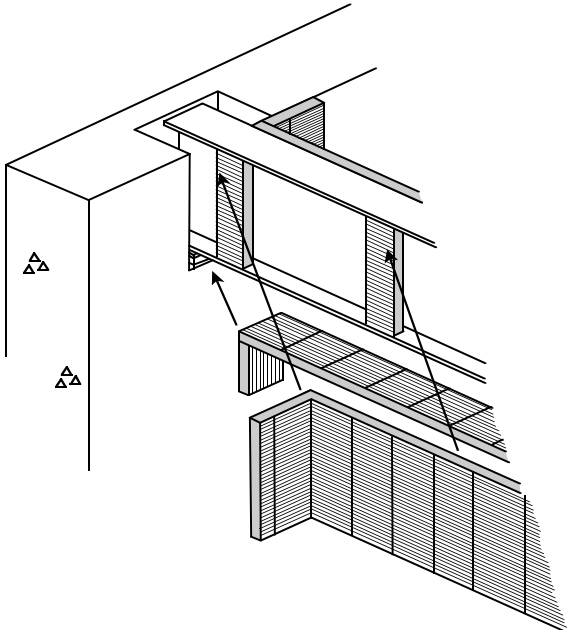
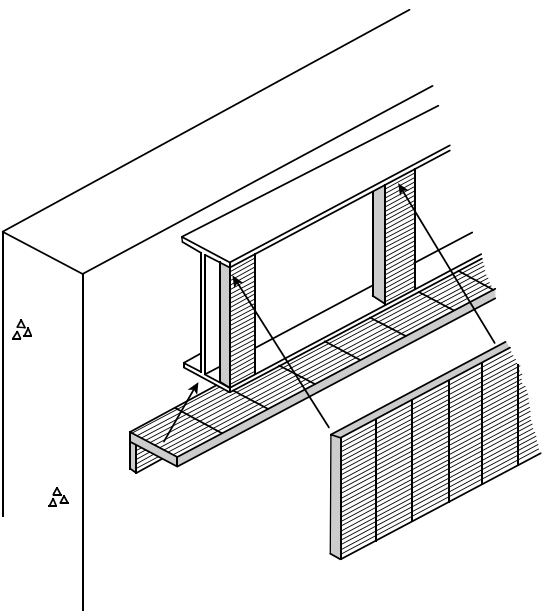
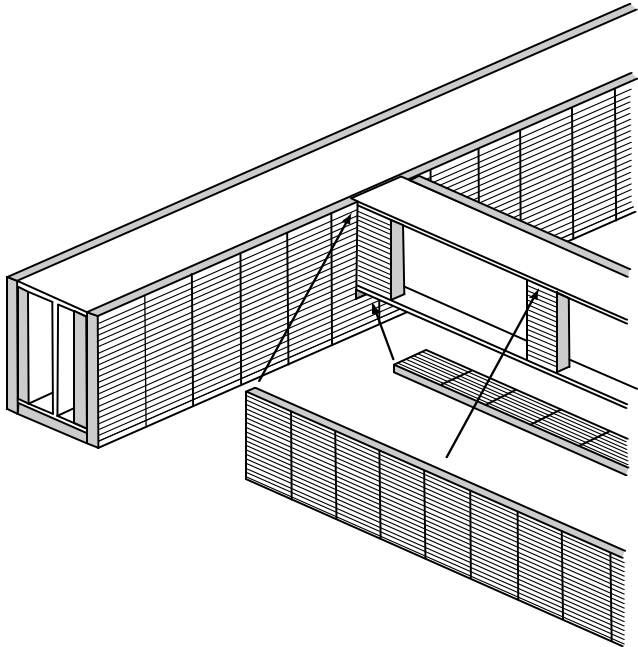
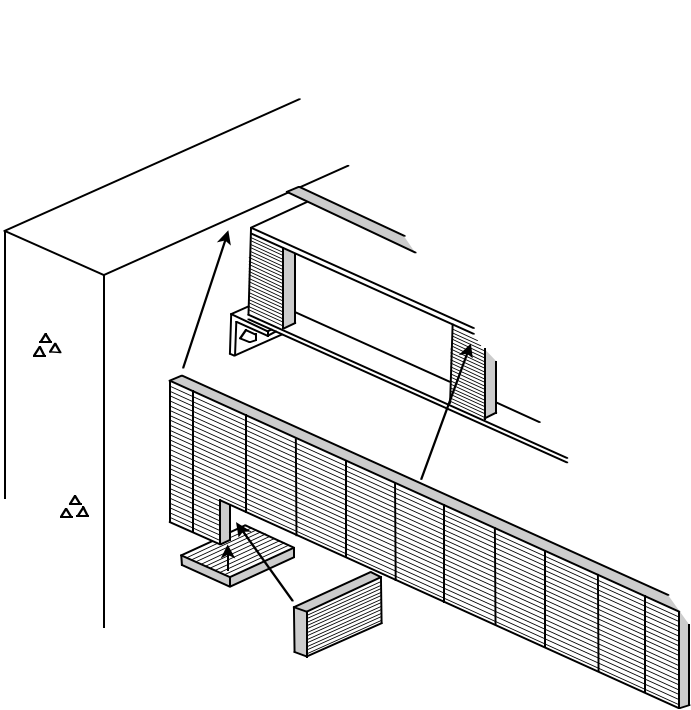
(C) Cut width of soffit boards to fit between side panels (nominal width of flange). Install panel tight up to flange with AlbiScrews at 6" centers along each side as shown in figures 3 and 4. For beams with flanges wider than 12" soffit boards require additional support. Use either DriClad Adhesive or steel pins as shown in figure 6.

Note: The nominal minimum length of AlbiScrews is the total thickness of the DriClad boards being fixed together. e.g. 3/4" fireproofing plus 1-1/2" minimum nogging requires size 1 (2-1/4") AlbiScrews.

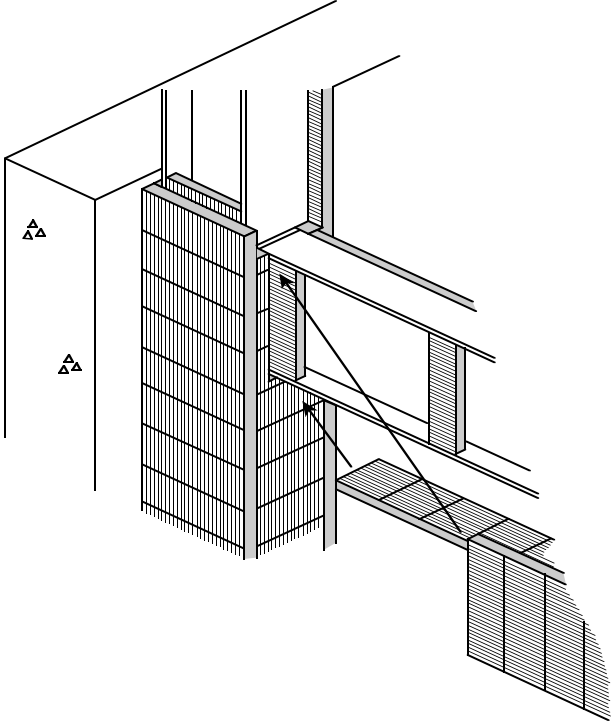
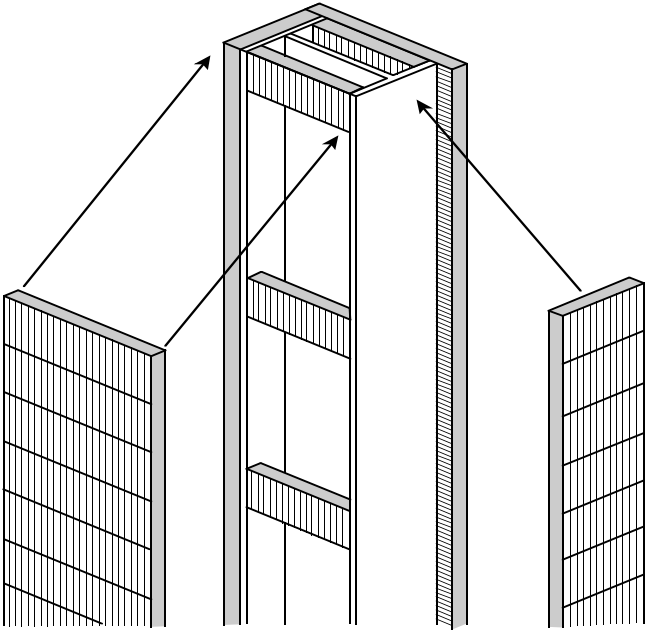
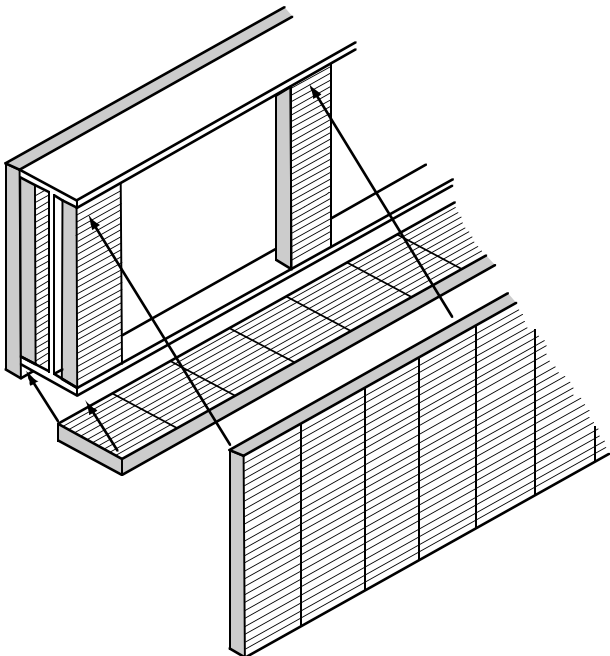
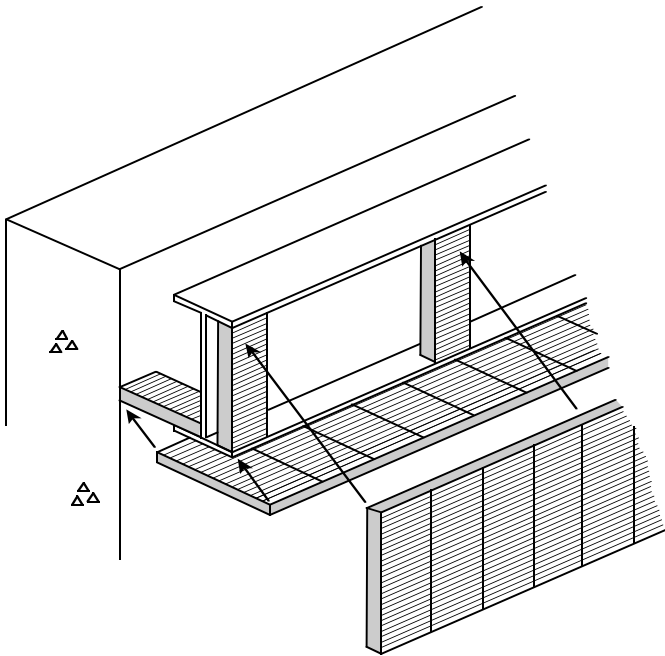
*Steel should be free from dust and loose particles where noggings are to be installed.



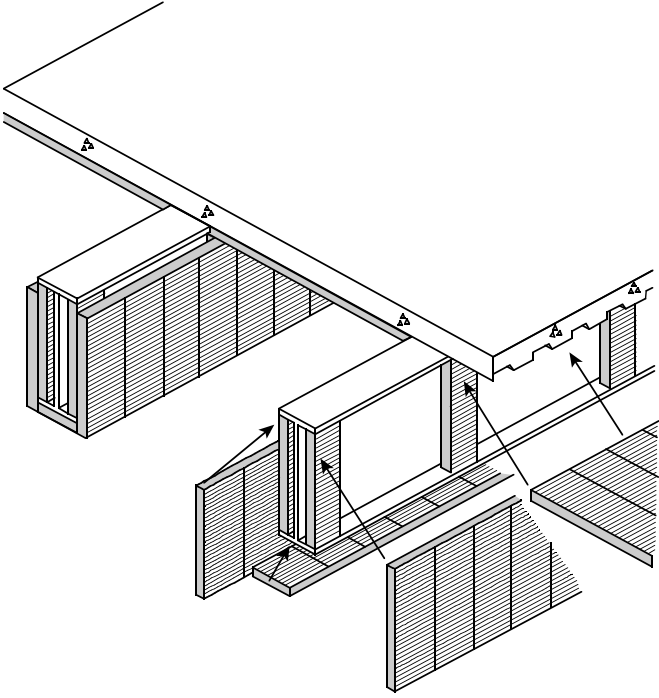
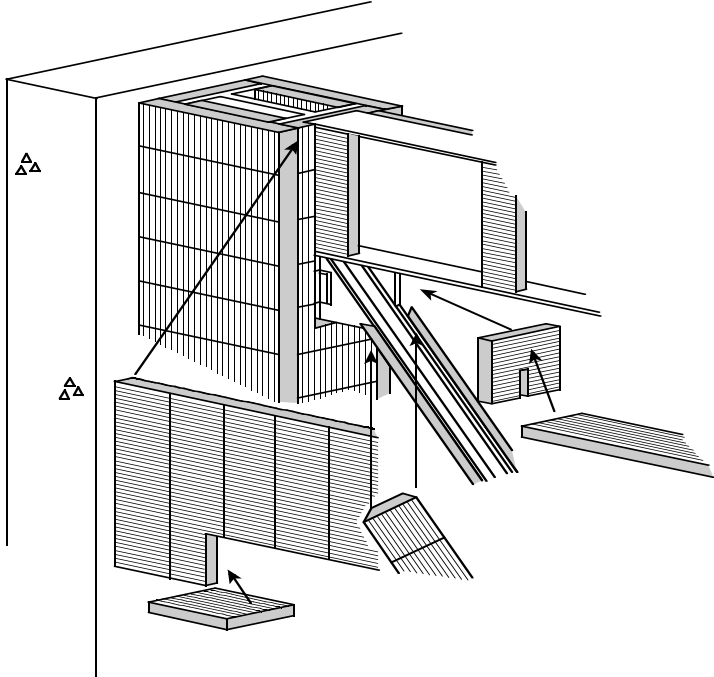
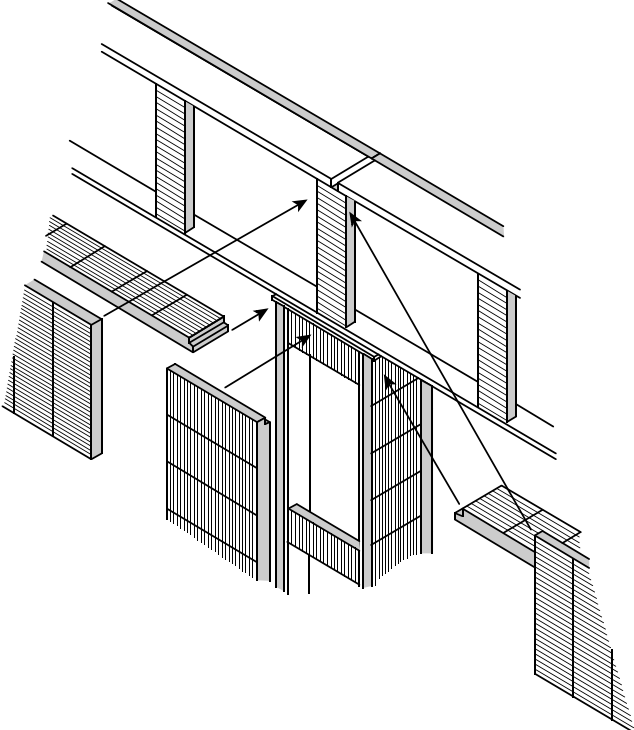
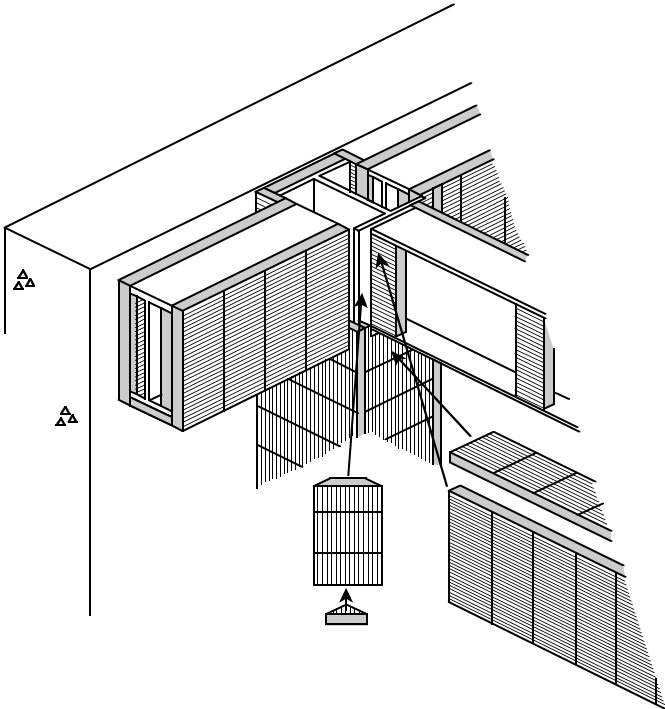
TYPICAL APPLICATION DETAILS (cont.)



TYPICAL APPLICATION DETAILS (cont.)



TYPICAL APPLICATION DETAILS (cont.)



UNDERWRITERS' LABORATORIES, INC. - LISTINGS

COLUMNS: **Wide Flange**

FIRE TEST: **ASTM E-119**

<u>COLUMN SIZE</u>	<u>U.L. DESIGN NO.</u>	<u>HOURLY RATING</u>	<u>MATERIAL THICKNESS</u>
W10 x 49	X-313	1 hr.	3/4 inches
	X-313	1-1/2 hrs.	1-1/4 inches
	X-313	2 hrs.	1-1/2 inches
	X-313	3 hrs.	2-1/2 inches
W12 x 120	X-313	4 hrs.	1-1/2 inches

BEAMS: **Roof / Ceiling** (restrained & unrestrained)

FIRE TEST: **ASTM E-119**

<u>BEAM SIZE</u>	<u>U.L. DESIGN NO.</u>	<u>HOURLY RATING</u>	<u>MATERIAL THICKNESS</u>
W8 x 28	S-301	1 hr.	3/4 inches
	S-301	1-1/2 hrs.	3/4 inches
	S-301	2 hrs.	1-1/2 inches

BEAMS: **Floor / Ceiling** (restrained & unrestrained)

FIRE TEST: **ASTM E-119**

<u>BEAM SIZE</u>	<u>U.L. DESIGN NO.</u>	<u>HOURLY RATING</u>	<u>MATERIAL THICKNESS</u>
W8 x 28	N-307	1 hr.	3/4 inches
	N-307	1-1/2 hrs.	3/4 inches
	N-307	2 hrs.(restrained)	3/4 inches
	N-307	2 hrs. (unrestrained)	1 1/2 inches
	N-307	3 hrs. (restrained)	1 1/2 inches

BEAMS: **Unprotected Roof / Ceiling** (restrained & unrestrained)

FIRE TEST: **ASTM E-119**

<u>BEAM SIZE</u>	<u>U.L. DESIGN NO.</u>	<u>HOURLY RATING</u>	<u>MATERIAL THICKNESS</u>
W8 x 28	P-930	1 hr.	3/4 inches
	P-930	1-1/2 hrs.	3/4 inches
	P-930	2 hrs.	1-1/2 inches

BEAMS: **Protected Roof / Ceiling** (restrained & unrestrained)

FIRE TEST: **ASTM E-119**

<u>BEAM SIZE</u>	<u>U.L. DESIGN NO.</u>	<u>HOURLY RATING</u>	<u>MATERIAL THICKNESS</u>
W8 x 28	P-302	1 hr.	1 inch

ASSEMBLY: **Floor / Ceiling** (restrained)

FIRE TEST: **ASTM E-119**

<u>BEAM SIZE</u>	<u>U.L. DESIGN NO.</u>	<u>HOURLY RATING</u>	<u>MATERIAL THICKNESS</u>
W8 x 28	D-929	1 hr.	3/4 inches
	D-929	1-1/2 hrs.	3/4 inches
	D-929	2 hrs.	3/4 inches
	D-929	3 hrs.	1-1/2 inches

ASSEMBLY: **Floor / Ceiling** (unrestrained)

FIRE TEST: **ASTM E-119**

<u>BEAM SIZE</u>	<u>U.L. DESIGN NO.</u>	<u>HOURLY RATING</u>	<u>MATERIAL THICKNESS</u>
W8 x 28	D-929	1 hr.	3/4 inches
	D-929	1-1/2 hrs.	3/4 inches
	D-929	2 hrs.	1-1/2 inches

ASSEMBLY: **Protected Floor / Ceiling** (restrained & unrestrained)

FIRE TEST: **ASTM E-119**

<u>BEAM SIZE</u>	<u>U.L. DESIGN NO.</u>	<u>HOURLY RATING</u>	<u>MATERIAL THICKNESS</u>
W8 x 28	D-303	2 hrs.	1 inch

ASSEMBLY: **Floor / Ceiling** (restrained & unrestrained)

FIRE TEST: **ASTM E-119**

<u>BEAM SIZE</u>	<u>U.L. DESIGN NO.</u>	<u>HOURLY RATING</u>	<u>MATERIAL THICKNESS</u>
W8 x 28	G-301	3 hrs.	1 inch

WARRANTY/GUARANTEE INFORMATION

Limited warranty/limitation of liability: Information and recommendations provided by Albi are based upon extensive test data, laboratory experiments and years of field experience believed to be reliable. Statements made herein as to application and other properties will vary according to the nature and conditions of the surfaces to which the product is applied.

Albi warrants that its products will meet the specifications that it sets for them. Albi's responsibility under this warranty will be limited solely to replacing the products which prove defective, provided that Buyer gives Albi prompt notice in writing of said defect and satisfactory proof thereof. Products may be returned to Albi only after written authorization has been obtained from Albi. The foregoing warranty is in lieu of all other warranties, whether oral, written, express, implied or statutory. **IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WILL NOT APPLY.** Technical or other advice is furnished by us solely as an accommodation and shall not increase the scope of our responsibilities or liability. Albi's warranty obligations and Buyer's remedies hereunder are solely as stated herein. In no event will Albi be liable either for the labor and other associated costs incurred in replacing the product, including, but not limited to, its removal and application, or for other incidental or consequential damages.

Applicator shall guarantee that its installation of material conforms to manufacturer's recommendations, and shall further guarantee his workmanship connected with the installation for a period of one year from the date of installation.