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Safety & Buildings Division
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Wisconsin
Building Product Evaluation

Material	Modular Panels for Walk-In-Coolers and Freezers
Manufacturer	Leer Inc. 206 Leer Street New Lisbon, WI 53950

SCOPE OF EVALUATION

This report evaluates the modular panels manufactured by Leer Inc for walk-in coolers and freezers. The panels were reviewed for compliance with the surface burning characteristics and the large scale testing requirements of UL 1715, Fire Test of Interior Finish Material, as spelled out in **IBC section 2603.9**.

The **2006 edition of the International Building Code (IBC)** as adopted and modified within the current **Wisconsin Commercial Building Code (WCBC)** as well as the **2009 edition of the International Building Code (IBC)** were used as the basis for determining compliance, including the following**:**

- Foamed–in-place Urethane Core: The urethane foam plastic used in the modular panel was evaluated under the foam plastic requirements in accordance with **IBC sections 2603.3 and 2603.9.**
- Wall and Ceiling Panel: The Leer foam plastic modular panel was evaluated as an insulated wall and ceiling panel used in walk-in coolers and freezers in accordance with **IBC section 2603.9**.

DESCRIPTION AND USE

Leer coolers and freezers consist of 4 to 5 inch thick wall and ceiling modular panels with foamed-in-place urethane insulation cores and steel or aluminum faces. The metal faces are painted or unpainted galvanized steel or stainless steel, a minimum of 0.019 inch thick or painted or unpainted aluminum, 0.044 inch maximum thickness. A variety of optional finishes are available. The panels have tongue and groove construction and are joined together using a cam lock fastener that is operated with a hex wrench.

TESTS AND RESULTS

Urethane Foam Core Material Surface Burning Characteristics

	Manufacturer		
	BASF Autofroth		Foam Enterprises
	9453, 0034, 0107 & 9591	9907	FE247HCF
Flame Spread	25	20	25
Smoke Developed	400	400	450

Wall and Ceiling Panel Surface Burning Characteristics

	5 inch thick maximum BASF Core Painted or Unpainted		5 inch thick maximum Foam Enterprises Core Unpainted	
	Steel	Aluminum	Steel	Aluminum
Flame Spread	25	25	25	25
Smoke Developed	Over 500	450	Over 500	450

Testing on the Leer 4 to 5 inch thick panels was conducted by Underwriters Laboratories Inc, in accordance with the UL Standard "UL 1715 Fire Test of Interior Finish Material". The Leer 4 to 5 inch thick panels have foam plastic core material, at a nominal density of 2.1 ± 0.2 lb./ft^3 surfaced with a minimum of 0.019-inch steel cladding or 0.044 inch maximum thickness aluminum cladding. Metal or plastic plug buttons are provided by the manufacturer for insertion into the cam-lock access holes after assembly.

As specified in **IBC section 2603.9**, the panels meet the flame spread requirements of **IBC Chapter 8**, but are not subject to the smoke developed limitations.

CONDITIONS OF USE WISCONSIN COMMERCIAL BUILDING CODE

The **IBC** stipulations below are in accordance with the current **Wisconsin Commercial Building Code (WCBC):**

Based on the diversified large scale testing and **IBC section 2603.9** the Leer walk-in cooler and freezer panels listed within this evaluation are not subject to the requirements of **IBC sections 2603.4 through 2603.7.** Among other things, the panels may be used without a thermal barrier and unless required by a different code requirement the panels need not be protected by an automatic sprinkler system.

The modular panels shall not be used as exterior construction subject to snow and wind loads unless the thermal performance and structural adequacy have been evaluated by a qualified designer.

The Wisconsin Building Product Evaluation number must be provided when designs that include this product are submitted for review.

DISCLAIMER

The department is not endorsing or advertising this product. This approval addresses only the specified applications for the product and does not waive or modify any code requirement not specified in this document.

EXPIRATION

This approval will be valid through December 31, 2016, unless manufacturing modifications are made to the product or a re-examination is deemed necessary by the department. The product approval is applicable to projects approved under the current edition of the applicable codes. This approval may be void for project approvals made under future applicable editions.

Reviewed by: JBS

Approval Date: April 26, 2011

By: James B. Smith, P.E.
Program Manager
Bureau of Program Development