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**Wisconsin**  
Department of Commerce

Evaluation #

200723-I

Safety & Buildings Division  
201 West Washington Avenue  
P.O. Box 2658  
Madison, WI 53701-2658

## Wisconsin Building Products Evaluation

Material

GACO WallFoam 193  
Polyurethane Insulation  
(Spray-Applied )

Manufacturer

GACO Western LLC  
P.O. Box 646  
Waukesha, WI 53187

### SCOPE OF EVALUATION

**GENERAL:** This report evaluates the use of the WallFoam 193 polyurethane insulation (spray-applied), manufactured by GACO Western LLC. WallFoam 193 a closed-cell rigid spray polyurethane insulation was evaluated as a foamed-in-place insulation for use in brick and concrete block cavities, pre-cast hollow core panels and planks, and wood frame, in new and existing construction.

WallFoam 193 foamed-in-place polyurethane insulation was evaluated in accordance with the fire safety requirements for foam plastic, and thermal performance, for the codes listed below.

The **Comm** requirements below in accordance with the current **Wisconsin Uniform Dwelling Code for 1- and 2-family dwellings:**

- **Foam Plastic Material:** WallFoam 193 foamed-in-place polyurethane insulation was evaluated in accordance with the fire safety requirements of **s. Comm 21.11.**
- **Thermal Performance:** WallFoam 193 foamed-in-place polyurethane insulation was evaluated in accordance with the thermal performance requirements of **Subchapter VI, ss. Comm 22.20, 22.21, 22.23, 22.25, 22.27, 22.28, and 22.31.**

The **IBC** requirements below in accordance with the current **Wisconsin Amended ICC Code:**

- **Foam Plastic:** WallFoam 193 foamed-in-place polyurethane insulation was evaluated in accordance with the fire safety requirements of **ss. IBC 2603.1, 2603.2, 2603.3 and s. IBC 2603.4.**
- **Thermal Performance:** WallFoam 193 foamed-in-place polyurethane insulation was evaluated in accordance with the thermal performance requirements of **s. Comm 63.1018(2)(a)1., (c).**

## **DESCRIPTION AND USE**

The WallFoam 193 is a two-component polyurethane spray foam made by combining an Isocyanate (A) Component with a water/Enovate 3000 (HFC-245fa) blown (B) Component has a nominal in-place density of 1.9 pounds per cubic foot.

WallFoam 193 a structural sprayed-applied polyurethane insulation was evaluated as a foamed-in-place insulation for use in brick and concrete block cavities, pre-cast hollow core block and plank in new and existing residential and commercial and frame construction.

## **TESTS AND RESULTS**

Tests for surface-burning characteristics for WallFoam 193 foamed-in-place polyurethane insulation were conducted in accordance with ASTM E84. The flame spread index was determined to be **30** and the smoke-developed index was determined to be **450**.

Thermal conductivity is as follows: the thermal conductivity of WallFoam 193 foamed-in-place polyurethane insulation has an **R-value** of **6.2** per inch of thickness.

Testing showed the WallFoam 193 to have a compressive strength of 37 lbf/in<sup>2</sup>.

Testing was conducted by Intertek ETL Semko, Report Number 3127781COQ-006, August 9, 2007.

## **LIMITATIONS OF APPROVAL**

**General:** WallFoam 193 foamed-in-place polyurethane insulation **is approved** for installation in brick and concrete block cavities, pre-cast hollow core block and plank in new and existing residential and commercial and frame construction.

WallFoam 193 foamed-in-place polyurethane insulation shall be installed by licensed, certified GACO Western LLC dealers in accordance with the manufacturer's recommendations.

The **Comm** limitation requirements below are in accordance with the current **Wisconsin Uniform Dwelling Code (UDC), for 1- & 2-family dwellings:**

- **Foam Plastic:** WallFoam 193 foamed-in-place polyurethane insulation shall be separated from the building interior with a thermal barrier as required by **s. Comm 21.11 (1)**.
- **Thermal Performance:** WallFoam 193 foamed-in-place polyurethane insulation shall meet the thermal performance requirements of **Subchapter VI, ss. Comm 22.20, 22.21, 22.23, 22.25, 22.27, 22.28, and 22.31**. Calculations shall be signed, sealed and submitted in accordance with **s. Comm 22.31**.

The **IBC** limitations below are in accordance with the current **Wisconsin Amended IBC 2000 Code:**

- **Foam Plastic:** WallFoam 193 foamed-in-place polyurethane insulation shall be separated from the building interior with a thermal barrier as required by **s. IBC 2603.4**.
- **Thermal Performance:** WallFoam 193 foamed-in-place polyurethane insulation shall meet the thermal performance requirements of **s. Comm 63.1018(2)(a)1., and (c)**. Calculations shall be signed, sealed and submitted in accordance with **s. Comm 63.1019**.

WallFoam 193 foamed-in-place polyurethane insulation is only allowed in accordance with **s. IBC 2603.3**.

This approval will be valid through December 31, 2012, 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. The Wisconsin Building Product Evaluation number must be provided when plans that include this product are submitted for review.

**DISCLAIMER**

The department is in no way endorsing or advertising this product. This approval addresses only the specified applications for the product and does not waive any code requirement not specified in this document.

Revision Date:

Approval Date: February 15, 2008 By: \_\_\_\_\_

Lee E. Finley, Jr.  
Product & Material Review  
Integrated Services Bureau

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