

BUILDING PRODUCTS LISTING PROGRAM

Customer: **International Fireproof Technology Inc (IFTI)**

Class: Applied Fireproofing

Location: Irvine, CA

Website: www.painttoprotect.com

Listing No. B1117-3

Project No. B1117-3, Edition 1

Effective Date: April 11, 2019

Last Revised: April 11, 2019

Date:

Expires: <N/A>

Standards: ASTM E84 "Standard Test Method for Surface Burning Characteristics of Building Materials".

UL 723 "Standard for Test for Surface Burning Characteristics of Building Materials:

ANSI/NFPA No 255 "Standard Method of Test of Surface Burning Characteristics of Building Materials"

CAN/ULC-S124 "Standard Method of Test for the Evaluation of Thermal Barriers for Foamed Plastic"

NFPA 285 "*Standard Fire Test Method for Evaluation of Fire Propagation characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components*".

NFPA 286 "*Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth*".

Product: DC4000-2K Fire Protective Coating.

Description: DC4000-2K Fire Protective Coating is a two component, weather resistant, water based non-intumescent coating for interior and exterior use

Markings: Product is marked with labels or stamp supplied by IFTI to each container. The markings include:

- Manufacturer's name, trademark, or other recognized symbol of identification
- Product model designation
- QAI File Number B1117
- Date of manufacture or date code on the label or stamp
- Flame Spread Index / Smoke Developed Index Rating

- QAI logo shown here:



Models / Ratings: **The following outlines DC4000-2K coating ratings determined in accordance with ASTM E84, UL 723, ANSI/NFPA 255 and UBC NO. 8-1**

SUBSTRATE	FLAME SPREAD INDEX (FSI)	SMOKE DEVELOPED INDEX (SDI)	APPLICATION (WET MILS)
NCFI Polyurethane HFO Polyurethane foam $\leq 4"$ thick and $\leq 2 \text{ lbs/ft}^3$	≤ 25	≤ 450	60

Note: UL 723 and NFPA No 255 are equivalent and have the same ratings.

The following outlines DC4000-2k water based non-intumescent coating ratings determined in accordance with CAN/ULC S124.

SUBSTRATE	RATING	APPLICATION (WET MILS)
4 1/2" thick Spray Applied Polyurethane Foam complying with CAN/ULC S705.1	Classification B	80

The following outlines DC4000-2k water based non-intumescent coating ratings determined in accordance with NFPA 285

Standard	QAI Design #	Model	Rating
NFPA 285	B1117-3-1	DC4000-2K @ min 60 mils	Complies

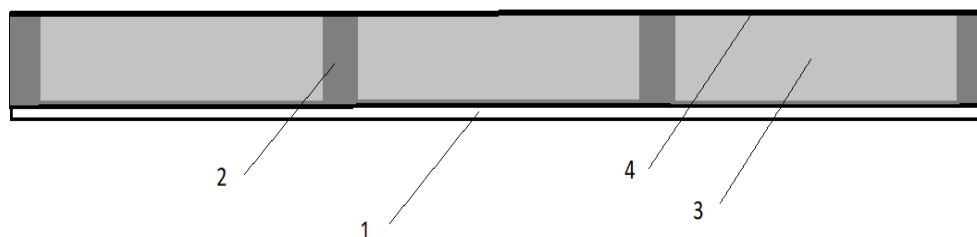
NFPA 285 DETAILS OF CONSTRUCTION QAI DESIGN NO B1117-3-1

Component	Description
Steel studs	3-5/8 in. (92 mm) deep 20 ga galvanized steel spaced 24 in. (609 mm) on center, secured to the track with self-drilling screws.
Interior Gypsum Board	Type X gypsum board, 5/8 in. (15.9 mm) thick, listed by an approved agency as complying with ASTM C1396. 4 ft. (1219 mm) wide, attached to the interior face of steel studs with 1-5/8 in. (41 mm) long self-tapping screws spaced 8 in. (203 mm) OC around the perimeter and 12 in. (304 mm) OC in the field. Joints were oriented vertically and covered with paper tape and joint compound.
Stud Cavity Insulation	Accella EcoBay CC 2.0 pcf spray foam insulation installed at a thickness of nominal 3 in (76 mm) within the stud cavities, leaving a nominal 5/8 in (15.9 mm) air gap between the surface of the insulation and interior gypsum board.
Exterior Gypsum Board	Exterior gypsum board, 5/8 in. (15.9 mm) thick complying with ASTM C1777 attached to the exterior face of steel studs with 1-5/8 in. (41 mm) long self-tapping screws spaced 8 in. (203 mm) OC around the perimeter and 12 in. (304 mm) OC in the field. Joints not treated.
Horizontal Z Girts	20 ga.non-perforated steel z girts with a depth of 3 in (76mm) and 1 ½ in (38mm) flanges were installed horizontally over the exterior sheathing, spaced at 4 feet (1219 mm) OC.
Exterior Insulation	Accella EcoBay CC 2.0 pcf insulation sprayed at a thickness of nominal 2 in (51 mm) directly onto the exterior sheathing, and between the horizontal z girts. A nominal 1 in (25.4 mm) air gap between the surface of the insulation and outer flange of the z girts.
Spay Coating	DC 4000 spray coating was applied at a nominal 60 mil wet thickness directly onto the exterior Accella EcoBay CC insulation. Coating sprayed applied onto the entire assembly; Note additional coats may need to be applied to obtain final desired 60 mil wet thickness.
Steel Corrugated Panels	0.042 inch (1.1 mm) thick, 1-1/2 in (38 mm) deep steel corrugated panels 3 feet (914mm) wide fastened to the horizontal z girts

The following outlines DC4000-2k water based non-intumescent coating ratings determined in accordance with NFPA 286

Standard	Model	Rating
NFPA 286	DC 4000-2K @ min 60 Mils on 5.5 Seal Tite CC+ closed Cell Spray Applied Polyurethane Foam (≤ 2.2 lbs/ft ³)	Complies with Acceptance Criteria in Annex C of NFPA 286-15, 2009 IBC section 803.1.2 2009 IRC section 316.6 and 2015 NFPA 101 section 10.2.3.7.2

Figure 1: QAI Design B1117-3-2, NFPA 286 complaint Application



- 1) 5/8 in. thick approved fire rated Type X gypsum wallboard complying with ASTM C1396 and listed by an approved agency, fastened to one side of the framing using 1-1/4 in. length drywall screws spaced 8 in. on center.
- 2) Nominal 2 in. by 6 in. wood studs for walls and 2 in. x 10 in. wood Joists for ceiling, located 24 in. on center.
- 3) Accella Polyurethanes Seal Tite CC+ closed cell spray-applied polyurethane foam (≤ 2.2 lbs/ft³) inside the cavity at maximum thickness of 5-1/2 in. wall cavity, and 9 1/2 in. in the ceiling / joist cavities.
- 4) DC4000-2K Fire Protective Coating at an average thickness of 60 mils.

Uses: DC4000-2K Fire Protective Coating is a two component, weather resistant, water based non-intumescent coating, for interior and exterior use, on spray applied foam insulation. When DC4000-2K is applied to spray foam insulation, the coated foam plastic assembly may be left exposed as the interior finish in lieu of a prescriptive thermal barrier.

For application the manufacturers installations instructions must be followed, foam MUST be cured and cooled to ambient conditions, all surface preparation should be carried out in accordance with good painting practices and the DC4000-2K must be thoroughly mixed before being spray applied.

The mil thickness should to be checked during installation to ensure minimum noted thickness are maintained.

Design,
Installation & conditions of Use: See Manufactures Approved Design and Installation Documents.

Notes: Final acceptance of the product in the intended application is to be determined by the authority having jurisdiction.

The materials, products or systems listed herein have been qualified to bear the QAI Listing Mark under the conditions stated with each Listing. Only those products bearing the QAI Listing Mark are considered to be listed by QAI. No warrantee is expressed or implied, and no guarantee is provided that any jurisdictional authority will accept the Listing found herein. The appropriate authorities should be contacted regarding the acceptability of any given Listing. Visit the QAI Online Listing Directory located at www.qai.org for the most up to date version of this Listing and to validate that this QAI Listing is active. Questions regarding this listing may be directed to info@qai.org. Please include the listing number in the request.
