



UL Solutions Evaluation Report

ULC ER41037

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Category Code: ULEX7 - Thermal Protection for Canada

CSI MasterFormat®

Division: 07 21 00 Thermal Insulation Sub Level : 07 21 19 Foamed-In-Place Insulation

COMPANY:

BASF Canada Inc. 10 Constellation Court Toronto, Ontario Canada M9W 1K1

www.basf.com

1. SUBJECT:

WALLTITE® v.5

2. SCOPE OF EVALUATION

2015 National Building Code of Canada, NBCC (Sept. 28, 2018) 2020 National Building Code of Canada, NBCC (July 15, 2019)

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Clause 1.2.1.1.(1)(a) Compliance with this Code (Acceptable Solution from Division B)

Part 5 – Environmental SeparationArticle 5.9.1.1Compliance with Applicable Standards

Part 9 – Housing and Small Buildings Clause 9.25.2.2.(1)(h) Insulation Materials Article 9.25.2.5 Installation of Spray-Applied Polyurethane

The product underwent evaluation for the following properties:

- Surface Burning Characteristics (CAN/ULC-S102)
- Physical Properties (CAN/ULC-S705.1)
- Application (CAN/ULC-S705.2)

3. REFERENCED DOCUMENTS

CAN/ULC:

CAN/ULC-S102	Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies
CAN/ULC-S705.1	Standard for Thermal Insulation, Spray Applied Rigid Polyurethane Foam, Medium Density – Material Specification
CAN/ULC-S705.2	Standard for Thermal Insulation, Spray Applied Rigid Polyurethane Foam, Medium Density – Application

4. USES

The BASF Canada Inc. **WALLTITE® v.5** spray-applied, rigid polyurethane medium density foam is intended for use as a building thermal insulation or for other purposes in building and non-building applications in both site-built construction and building prefabrication process.

This Report does not cover the WALLTITE® v.5 for use in exterior roofing applications, radon resistance systems, fire resistive construction, or exterior wall applications where flame propagation testing is required. Additional evaluations and testing other than noted in this Report are typically required to meet these and other applications.

5. PRODUCT DESCRIPTION

The **WALLTITE**® **v.5** product is a spray applied, rigid polyurethane medium density foam insulation. The site sprayed foam system consists of two components, isocyanate and resin. The two components are mixed on site by qualified installers with a fixed-ratio positive displacement equipment. The WALLTITE® v.5 material is applied at a minimum density of 32.5 kg/m³ (2.03 pcf). The installed colour is purple.

The WALLTITE® v.5 elements are under a UL Solutions quality audit program where UL Solutions Field Staff audit material manufacturing facilities, details of the product are on file at UL Solutions and are described by WALLTITE® v.5 documentation, Revision 1.

6.0 PERFORMANCE CHARACTERISTICS

The BASF **WALLTITE® v.5** thermal insulation was evaluated for the performance characteristics as reported below in "Table 1: WALLTITE® v.5 Performance Characteristics", with testing in accordance with the following test standards:

CAN/ULC S705.1-15-REV1 and CAN/ULC S705.1-18 Standard for Thermal Insulation, Spray Applied Rigid Polyurethane Foam, Medium Density – Material Specification

Table 1: WALLTITE® v.5 Performance Characteristics			
Properties	Requirements	Results	
Density (minimum site specified density)	≥ 28 kg/m³	32.5 kg/m ³	
Air Permeance	≤ 0.02 L/(s⋅m²)@75Pa	Compliant	
Compression Strength	≥ 170 kPa	203 kPa	
Dimensional Stability			
28 d at -20±3°C, ambient humidity	-2 to +5%	-0.5%	
28 d at 80±2°C, ambient humidity	-2 to +8%	+1.0%	
28 d at 70±2°C, 97±3% R.H	-2 to +14%	+8.0%	
Fungi Resistance	No Growth	Compliant	
Long Term Thermal Resistance			
@ 50mm thickness	≥ 1.80 m²⋅K/W	1.95 m²·K/W	
@ 75mm thickness	Declare	3.00 m²⋅K/W	
Open-Cell Content	≤ 10%	7 %	
Surface Burning Characteristics			
Flame Spread Rating (CAN/ULC-S102)	≤ 500	Compliant	
Flame Spread Rating (CAN/ULC-S127)	≤ 500	Compliant	
Tensile Strength	≥ 200 kPa	267 kPa	
Time to Occupancy	< 30 Days	25 hrs.	
Water Absorption by Volume	≤ 4.0 %	1.9 %	
Water Vapour Permeance @ 50mm thickness	≤ 60 ng/(Pa·s·m²)	56 ng/(Pa⋅s⋅m²)	

7.0 INSTALLATION

Installation of the insulation must comply with this report and the manufacturer's published installation instructions. The manufacturer's published installation instructions are to be always available at the jobsite during installation.

- Installation must be by a licensed installer in accordance with the manufacturer's directions and follow CAN/ULC-S705.2.
- The specified minimum site density must comply with the above requirement, as measured on-site in accordance with CAN/ULC S705.2.
- The time to re-occupancy during retrofit construction is a minimum 25 hours.
- See BASF WALLTITE® v.5 Application Guidelines, avaiable at https://walltite.basf.ca/home/downloads

8.0 CONDITIONS OF USE

The WALLTITE® v.5 material described in this Report has been evaluated in accordance with code sections listed in Section 2.0, subject to the following conditions:

- Materials and methods of installation must comply with this report and the manufacturer's published installation instructions. In the event of a conflict between the manufacturer's published installation instructions and this report, the manufacturer shall be consulted.
- This product is manufactured in Blackie AB, and Toronto, ON., both manufacturing facilities are under UL Solution audit of quality elements.
- This product is combustible as defined by Code. Based on the flame spread characteristics this product may require additional protection from fire, consult the Authority Having Jurisdiction.

9.0 SUPPORTING EVIDENCE

BASF Canada Inc. has submitted technical documentation for UL Solutions review. Testing was conducted at ISO/IEC 17025 accredited laboratories. The test data submitted for this product is summarized below.

- Sample Selection of test materials at the BASF Toronto manufacturing facility by an ISO 17025 accredited testing laboratory.
- Data in accordance with CAN/ULC S705.1, compliant test reports from an ISO/IEC 17025 accredited test laboratory.
- Human Health Risk Assessment of Volatile Organic Compound reports by Ph.D. Toxicologist.
- Caliber Quality Solutions Inc. (Certification Organization / SQAP / site inspections).

10.0 IDENTIFICATION

The BASF **WALLTITE® v.5** thermal insulation described in this evaluation report is identified by a marking bearing the report holder's name (BASF Canada Inc.), the plant identification and the evaluation report number **ULC ER41037**. The validity of the evaluation report is contingent upon this identification appearing on the product drums.

11.0 CLIENT LOCATIONS / CONTACT

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