

## WALLTITE® CM01 – CCMC 14100-L

### *Spray Polyurethane Foam Insulation / Air Barrier*

#### **DESCRIPTION:**

WALLTITE CM01 is a purple, closed cell, medium density, low Global Warming Potential, spray applied polyurethane foam insulation and air barrier. Available in two reactivity grades: WALLTITE CM01 regular and WALLTITE CM01 Cold Temperature (WALLTITE CM01 CT). Unless specified, all references to WALLTITE CM01 in this Technical Product Data sheet refer to all two grades of WALLTITE CM01.

#### **USES:**

Intended for residential, commercial, industrial and institutional building applications where insulation is required. It can be used above or below grade, for interior or exterior building envelope applications including; exterior, cavity and foundation walls, between steel or wood framing, under floor slabs, in cantilevered areas and in specialized applications.

#### **FEATURES AND BENEFITS**

- **Superior Thermal Resistance** - WALLTITE CM01 is tested to the latest **CAN/ULC-S770-09 standard** achieving a higher LTTR than traditional insulation products resulting in reduced conductive heat loss and lower energy consumption.
- **Excellent Air Sealing Ability** - WALLTITE CM01 is a closed cell insulation that expands while being installed creating an effective air barrier, reducing air leakage, resulting in improved comfort and energy savings.
- **Quality Installation** – Licensing of installers is required by the CAN/ULC S705.2-05 Installation Standard, and WALLTITE CM01 is installed by applicators that are licensed through BASF Canada's Quality Assurance and Training Program – RAISING PERFORMANCE TO NEW HEIGHTS® (QATP) and certified through Caliber Solutions Inc. who is responsible for delivering the Quality Assurance Program (QAP).
- **Durability** - WALLTITE CM01 can be installed and left without any cladding for up to 3 months.
- **Experience** – With over 25 years' experience in spray polyurethane foam insulation, BASF Canada is well equipped to understand the challenges of the Canadian climate. Consumers can rest assured that they are working with the leading spray foam manufacturer in both residential and commercial construction.

#### **APPROVALS AND CREDENTIALS:**

- **CCMC 14100-L – Spray-Applied Rigid Polyurethane Foam Insulation**
- **CCMC 14152-R - WALLTITE CM01 for Radon Control (Soil Gas Barrier)**
- Conforms to **CAN/ULC S705.1-15 (latest version)**, exceeding that referenced in the National Building Code of Canada and provincial codes.
- **Low GWP (<1) blowing agent** - WALLTITE CM01 utilizes an HFO blowing agents, reducing impact on global warming.
- **GREENGUARD and GREENGUARD Gold Certification** – WALLTITE CM01 meets the stringent requirements of GREENGUARD Gold, thus ensuring occupant safety through improved indoor air quality.
- **ECOLOGO Certification** - WALLTITE CM01 is certified by UL, an independent safety science company, as meeting the criteria for UL 2985 – 2015 Sustainability Outline for Thermal Insulation, confirming a minimum recycled content of 5% by weight of finished product.
- Third party Life Cycle Assessment (**LCA**) and Environmental Product Declaration (**EPD**) is available
- **LEED v.4** compliant



# WALLTITE® CM01

## TYPICAL PHYSICAL PROPERTIES\*

The following test data is from an independent laboratory and is in compliance with the product standard.

Property	Value Metric (Imperial)	Test Method
Density (Core)	29.6 kg/m <sup>3</sup> (1.85 lb/ft <sup>3</sup> )	ASTM D1622
Compressive Strength	236 kPa (34.2 psi)	ASTM D1621
Tensile Strength	313 kPa (45.34psi)	ASTM D1623
Open Cell Content	5.6%	ASTM D2856
Water Absorption	0.58 %	ASTM D2842
Water Vapour Permeance 50mm sample	56.3 ng/Pa·s·m <sup>2</sup> (0.98 Perms)	ASTM E96
Dimensional Stability	Volume Change (%) after 28 days + 1.4 @ -20°C (-4°F) + 7.0 @ 70°C (158°F) @ 97± 3% RH + 5.9 @ 80°C (176°F)	ASTM D2126
Flame Spread Classification**	Flame Spread <500	CAN/ULC-S102 Including -S127
Time to Occupancy***	24 hours	CAN/ULC-S774
Hot Surface Performance	Passed when exposed to 93°C for 96 hours	ASTM C411
Fungi Resistance	After 28 days incubation – No fungal growth exhibited	ASTM C1338

## AIR BARRIER TESTING RESULTS

Property	Value Metric (Imperial)	Test Method
Material Result @ 25.4 mm	≤ 0.02 l/s/m <sup>2</sup> @ 75Pa	NRC/IRC/CCMC MasterFormat Section 07 27 09.02

## LONG-TERM THERMAL RESISTANCE\*\*\*\*

Test Method: CAN/ULC-S770-09

Thickness mm (inches)	R Value ft <sup>2</sup> ·hr·°F / BTU	RSI m <sup>2</sup> ·K/W
50.0 (1.97)	10.3	1.82
50.8 (2.00)	10.5	1.85
63.5 (2.50)	13.5	2.37
75.0 (2.95)	16.1	2.83
76.2 (3.00)	16.4	2.88
88.9 (3.50)	19.3	3.39
100.0 (3.94)	21.8	3.84
101.6 (4.00)	22.1	3.90

\*These physical property values are typical for this material as applied at our development facility under controlled conditions. WALLTITE CM01 performance and actual physical properties will vary with differences in application (i.e. ambient conditions, process equipment and settings, material throughput, etc.). As a result, these published properties should be used as guidelines solely for the purpose of evaluation. Physical property specifications should be determined from actual production material.

\*\*Numerical flame spread ratings are not intended to reflect hazards presented by this or any products made from this material under actual fire conditions. WALLTITE CM01 should not be left exposed and must be protected by a thermal barrier.

\*\*\*The volatile organic compound (VOC) emissions under consideration were measured with an assumed room ventilation rate of 0.3 air changes per hour as per the NBC requirements for new construction.

\*\*\*\*The Long-Term Thermal Resistance values are the design value used for WALLTITE CM01 as per CAN/ULC-S705.1-15, paragraph 5.5.6.2.

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Warning! These products can be used to prepare a variety of polyurethane products. Polyurethanes are organic materials and must be considered combustible.

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## WALLTITE® CM01

### Test Method: CAN/ULC-S770-03

For information purposes only as WALLTITE CM01 was evaluated under the CAN/ULC S705.1-15 which requires the use of the CAN/ULC S770-09.

Thickness mm (inches)	R Value ft <sup>2</sup> ·hr·°F / BTU	RSI m <sup>2</sup> ·K/W
50.0 (1.97)	10.7	1.88
50.8 (2.00)	10.8	1.91
63.5 (2.50)	13.5	2.38
75.0 (2.95)	16.6	2.93
76.2 (3.00)	16.9	2.97
88.9 (3.50)	19.7	3.46
100.0 (3.94)	22.9	4.03
101.6 (4.00)	23.2	4.09

### COLOUR

Initial surface colour is purple. This is expected to change upon exposure to UV (sunlight) to a grey or rusty brown and eventually yellow. The colour of the core may vary based on application thickness and the number of passes and time between passes.

### APPLICATION

WALLTITE CM01 must be installed in accordance with the CAN/ULC-S705.2 standard and the QATP manual by applicators licensed through the QATP and certified by Caliber. Before applying, ensure ambient temperature is:

WALLTITE CM01	5°C to 40°C (41°F to 104°F)
WALLTITE CM01 CT	-15°C to 10°C (5°F to 50°F)

### Do not apply WALLTITE CM01 in excess of 50 mm (two inches) depth per pass due to the product's exothermic effect.

After spraying a pass, cooling time must be allowed for the dissipation of heat before spraying another pass. Not allowing adequate cooling time raises the risk of scorching and/or fire and affects product mileage.

- **WALLTITE CM01 regular grade:** After applying a 2 inches first pass, wait 3 to 5 minutes before applying the second 2 inches pass. If a depth of more than 101.6mm (4") is required, wait at least 30 minutes before spraying a third pass and 30 minutes for the fourth pass if required. A maximum of four passes to a total depth of 203.2mm (8") can be applied in a two-hour period.
- **WALLTITE CM01 CT:** After applying the first 2 inches pass, wait at least 30 minutes before applying the second pass (2 inches max) and 1 hour for additional passes. Three passes to a total depth of 152.4 mm (6") can be applied in a two-hour period.

For application information, please consult the *BASF Canada Application guidelines for WALLTITE CM01 Insulation / Air Barrier Material*.

### SHORT FORM SPECIFICATION (visit [www.walltite.com](http://www.walltite.com) for a more detailed specification)

Insulation / Air Barrier Material: Closed cell, spray applied polyurethane foam, medium density, ccSPF meeting the requirements of CAN / ULC-S705.1-15. GREENGUARD and GREENGUARD Gold Certification for low chemical emissions. Product to utilize Low GWP (Global Warming Potential) blowing agent.

### PRODUCT: WALLTITE® CM01 by BASF

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## WALLTITE® CM01

### QUALITY ASSURANCE PARAMETERS AND REACTIVITY

All Measurements taken at ambient temperatures of 23 °C, using Graco Reactor HVR and Fusion AP 5252 chamber

	WALLTITE CM01	WALLTITE CM01 CT
Hose and Primary Temperatures - °C(°F)	49 (120)	49 (120)
Pressure – Bar (psi)	83 (1200)	83 (1200)
Gel Time (seconds)	1.70 ± 0.30	1.45 ± 0.25

### PACKAGING AND STORAGE RECOMMENDATION

WALLTITE CM01 is sold to licensed contractors in drums, totes or bulk tankers. It consists of two components: WALLTITE CM01 Resin and ELASTOSPRAY 8000A Isocyanate.

	WALLTITE CM01 Resin	ELASTOSPRAY 8000A Isocyanate
Shelf Life	6 months	12 months
Storage Temperature Recommendations	15°C-25°C (59°F-77°F)	15°C-25°C (59°F-77°F)
Drum Mass	220 kg (485 lbs.)	227 kg (500 lbs.)
Drum description	Steel drum - Blue	Steel drum – Red or Black

### LIQUID COMPONENT PROPERTIES

	WALLTITE CM01 Resin	ELASTOSPRAY 8000A Isocyanate
Viscosity – mPa·s @ 25°C (77 °F)	250 ± 50	200 ± 30
Specific Gravity @ 25°C (77°F)	1.19	1.22
Flash Point	>93°C (>200°F)	>200 °C (>390 °F)
Ratio (Parts by Volume)	100	100

### HEALTH, SAFETY AND TOXICITY CONSIDERATIONS HANDLING RECOMMENDATIONS:

Always handle and apply WALLTITE CM01 in accordance with the BASF Canada QATP manual.

Do not apply WALLTITE CM01 in excess of 50 mm (two inches) per pass due to the product's exothermic effect. Allow appropriate cooling times between passes (see the Application section, above).

#### ELASTOSPRAY 8000A Isocyanate

- Use personal protective equipment (see MSDS)
- Avoid all contact with skin and eyes
- Do not inhale the vapours
- Do not store in a humid environment
- In case of spills, absorb using sand or absorbing material (not sawdust)
- For larger spills, contact BASF Canada at 1-800-454-2673, or any agency specialized in chemical damage control (e.g. CANUTEC at 613-996-6666)

#### WALLTITE CM01 Resin

Contains a low boiling point blowing agent:

- Use personal protective equipment (see MSDS)
- Before opening, unscrew the bung slowly to release the gas pressure in the drums
- Avoid all contact with skin

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### Installation Safety

At all times while spraying, properly fitting breathing apparatus supplying fresh air **must** be worn by the installers and others working within 10 meters (33 feet) of the installer. Protective gloves, overalls, eye protection, safety shoes and hard hats must also be worn while spraying. While spraying, always provide mechanical ventilation with a minimum 0.3 air changes per hour and continuing for 24 hours following installation. People with known respiratory allergies must avoid exposure to the isocyanate component. If inhalation of vapours occurs, remove the person from the working area to breathe fresh air and if breathing is still difficult call a physician. Avoid contact with eyes, skin and clothing. In case of eye contact, immediately flush with large amount of water for at least 15 minutes and call a physician immediately. In case of skin contact, wash area with soap and water. Wash soiled clothing before reuse.

### Fire Hazard

Fires involving either component may be extinguished with carbon dioxide, dry chemical, or an inert gas. Personnel fighting the fire must be equipped with self-contained breathing apparatus.

### PRECAUTIONS/LIMITATIONS

Do not install in locations where a non-combustible insulation is required. Keep minimum distances of 75 mm (3 in) from heat emitting devices. When installed inside a building protect foam in accordance with the building code requirements using a layer of drywall or a suitable thermal barrier.

### TECHNICAL ASSISTANCE

For more detailed information, call:

Toll-Free: 1-866-474-3538

BASF Canada Inc.: [www.walltite.com](http://www.walltite.com)

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