

WALLTITE® XL01 – CCMC 14230-R

Spray Polyurethane Foam Insulation

DESCRIPTION:

WALLTITE XL01 is a dark purple, closed cell, medium density, spray applied polyurethane foam insulation and air barrier material¹. Available in two reactivity grades: WALLTITE XL01 regular, and WALLTITE XL01 Cold Temperature (WALLTITE XL01 CT). Unless specified, all references to WALLTITE XL01 in this Technical Product Data sheet refer to both grades of WALLTITE XL01.

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.²

FEATURES AND BENEFITS

- **Superior Thermal Resistance** - The LTTR value of WALLTITE XL01 is higher than traditional insulation products resulting in reduced conductive heat loss and lower energy consumption.
- **Excellent Air Sealing Ability** - WALLTITE XL01 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 CCMC MasterFormat 07 21 19.06 Technical Guide, and WALLTITE XL01 is installed by applicators that are licensed through BASF Canada's Quality Assurance and Training Program and certified through Caliber Quality Solutions who is responsible for delivering the Caliber Quality Assurance Program (QAP).
- **Durability** - WALLTITE XL01 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 14230-R – WALLTITE XL01** meets the requirements of **CCMC Technical Guide for "Spray-Applied Polyurethane Foam Installed in One Pass with a Maximum Claimed Thickness of 127 mm (142mm with the field safety margin)"**, MasterFormat 07 21 19.06.
- WALLTITE XL01 physical properties are conformed with the same requirements as CAN/ULC S705.1-15 with modified spray methodology
- **LEED v.4** compliant
- Third party Life Cycle Assessment (**LCA**) and Environmental Product Declaration (**EPD**) available
- **Low GWP (<1) blowing agent** - WALLTITE XL01 utilizes an HFO blowing agent, reducing impact on global warming.
- **GREENGUARD and GREENGUARD Gold Certification** - WALLTITE XL01 meets the stringent requirements of GREENGUARD Gold, thus ensuring occupant safety through improved indoor air quality.



¹ WALLTITE XL01's intended use as an Air Barrier Material is beyond CCMC evaluation, see Report CCMC 14230-R. Air permeance properties of WALLTITE XL01 exceed that of an air barrier material.

² WALLTITE XL01's intended use for exterior applications are beyond CCMC evaluation, see Report CCMC 14230-R.

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)	32.25 kg/m ³ (2.01 lb/ft ³)	ASTM D1622
Compressive Strength	232 kPa (33.65 psi)	ASTM D1621
Tensile Strength	425 kPa (61.64 psi)	ASTM D1623
Open Cell Content	1.23%	ASTM D2856
Water Absorption	0.73 % by volume	ASTM D2842
Water Vapour Permeance 50mm sample – Bottom skin intact	40 ng/Pa·s·m ² (0.69 Perms)	ASTM E96
Air Permeance 1" Sample	< 0.02 L/s.m ² @ 75 Pa	ASTM E2178
Dimensional Stability Volume Change (%) after 28 days	+0.6 @ -20°C (-4°F) +1.6 @ 70°C (158°F) @ 97± 3% RH +1.3 @ 80°C (176°F)	ASTM D2126
Flame Spread Classification**	<500	CAN/ULC-S102 Including -S127
Time to Occupancy***	25 Hours	CAN/ULC-S774
Fungi Resistance	After 28 days incubation – no fungal growth exhibited	ASTM C1338
Hot surface performance	Passed when exposed to 93°C for 96 hours	ASTM C411-17

LONG-TERM THERMAL RESISTANCE****

Test Method: CAN/ULC-S770-09

Thickness mm (inches)	R Value ft ² ·hr·°F / BTU	RSI m ² ·K/W
50.0 (1.97)	10.62	1.87
50.8 (2.00)	10.79	1.90
75.0 (2.95)	15.96	2.81
76.2 (3.00)	16.18	2.85
100.0 (3.94)	21.41	3.77
101.6 (4.00)	21.75	3.83
125.0 (4.92)	27.48	4.84
127.0 (5.00)	27.94	4.92

For thicknesses greater than 5 inches, please refer to WALLTITE XL01 LTTR reference guide.

*These physical property values are typical for this material as applied at our development facility under controlled conditions. WALLTITE XL01 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 XL01 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 XL01 as per CCMC MasterFormat 07 21 19.06.

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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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COLOUR

Initial surface colour is dark 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 but is lighter than the surface colour.

ADHESION

For more information please refer to WALLTITE XL01 Training Manual.

APPLICATION

WALLTITE XL01 must be installed by an installer trained by BASF Canada in accordance with the Guidelines for WALLTITE XL01 - CCMC 14230-R and certified with Caliber QAP to the CAN/ULC S705.2 application standard. Before applying, ensure ambient temperature is:

WALLTITE XL01	0°C to 40°C (32°F to 104°F)
WALLTITE XL01 CT	-15°C to 5°C (5°F to 41°F)

Do not apply WALLTITE XL01 in excess of 142 mm (5½ inches) depth per pass due to the product's exothermic effect.

Any foam applied in excess of 142mm must be completely removed from the substrate. 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. The maximum nominal pass thickness is 125 mm (5"), the minimal installation thickness is 50 mm (2"). **All subsequent passes beyond the first pass are to be less than 90mm (3.5").**

¹**WALLTITE XL01 regular grade:** a period of 2 hours is required before applying a second pass of WALLTITE XL01. If a third layer is required to bring the depth to more than 215 mm (8.5") total thickness, there must be a cooling period of at least 4 hours between passes before spraying an additional pass. Maximum 300 mm (12") per 24 hrs.

¹**WALLTITE XL01 CT:** allow the surface of the first pass to cool to ambient temperature (approximately 2 hours) before applying the second pass. If a third layer is required to bring the depth to more than 215mm (8.5"), there must be a cooling period of at least 12 hours before spraying additional passes.

For application information, please consult the *BASF Canada Application guidelines for WALLTITE XL01 Insulation / Air Barrier Material*.

PACKAGING AND STORAGE RECOMMENDATION

WALLTITE XL01 is sold to licensed contractors in drums, totes or bulk tankers. It consists of two components: WALLTITE XL01 Resin and ELASTOSPRAY 8000A Isocyanate.

	WALLTITE XL01 Resin	ELASTOSPRAY 8000A Isocyanate
Shelf Life	4 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.)

LIQUID COMPONENT PROPERTIES

	WALLTITE XL01 Resin	ELASTOSPRAY 8000A Isocyanate
Viscosity – mPa·s @ 25°C (77 °F)	300 ± 50	200 ± 30
Specific Gravity @ 25°C (77°F)	1.21	1.22
Flash Point	>93°C (>200°F)	>200 °C (>390 °F)
Ratio (Parts by Volume)	100	100

¹ The application of multiple passes is beyond the scope of the CCMC Technical Guide "Spray-Applied Polyurethane Foam Installed in One Pass with a Maximum Claimed Thickness of 127 mm (142 mm with the field safety margin)", MasterFormat 07 21 19.06, see Report CCMC 14230-R. Time between passes was determined by BASF for applications greater than 5"

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HEALTH, SAFETY AND TOXICITY CONSIDERATIONS HANDLING RECOMMENDATIONS:

Always handle and apply WALLTITE XL01 in accordance with the BASF Canada QATP manual.

Do not apply WALLTITE XL01 in excess of 140 mm (5½ 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 XL01 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

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

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