QAI LABORATORIES
CERTIFICATION TESTING INSPECTION

VANCOUVER, BC: 877.461.8378 ph. | 604.527.8368 fx.
LOS ANGELES, CA: 909.483.0250 ph. | 909.483.0336 fx.
WASHINGTON, DC: 540.636.9445 ph. | 540.636.9414 fx.
TULSA, OK: 918.437.8333 ph. | 918.437.8487 fx.
TORONTO, ON 905.605.5444
SEATTLE, WA 425.512.8419
WEBSITE: WWW.QAI.ORG

BUILDING PRODUCTS LISTING PROGRAM

Customer: Superform Products Ltd.
Class: Thermal Insulation – Foam Plastic
Location: 1065 Willow Street, Pincher Creek, Alberta, T0K 1W0 Canada

Website: https://superformicf.ca/icf/

Listing No. B1051-2
Effective Date: April 17, 2014
Last Revised September 17, 2019
Expiration: N/A

Standards: CAN/ULC S701 “Thermal Insulation, Polystyrene, Boards and Pipe Covering”.

CAN/ULC S102.2 “Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies”.

ASTM C578 “Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation”.

ASTM E84 - “Standard Test Method for Surface Burning Characteristics of Building Materials”.

Product(s): Superform EPS+ Expanded Polystyrene Thermal Insulation Products
Superform MAX+ Expanded Polystyrene Thermal Insulation Products

Markings: Products are marked in a permanent manner on the backside of each panel with the following:

a) Company Name: Superform Products Ltd.
b) CAN/ULC S701 / ASTM C578 Type as appropriate
c) CAN/ULC S102.2 Flame Spread Smoke Developed Index (FSI ≤ 230 / SDI ≥ 500)
d) ASTM E84 Flame Spread Smoke Developed Index (FSI ≤ 25 / SDI ≤ 450)
e) Traceability code including date of manufacture.
f) QAI Mark as shown below:

Labels are applied to palletized finished products to ensure visibility on the jobsite.

VANCOUVER, BC: 877.461.8378 ph. | 604.527.8368 fx.
LOS ANGELES, CA: 909.483.0250 ph. | 909.483.0336 fx.
WASHINGTON, DC: 540.636.9445 ph. | 540.636.9414 fx.
TULSA, OK: 918.437.8333 ph. | 918.437.8487 fx.
TORONTO, ON 905.605.5444
SEATTLE, WA 425.512.8419
WEBSITE: WWW.QAI.ORG

Ratings:

SUPERFORM EPS+ THERMAL INSULATION TYPES PER CAN/ULC S701			
PROPERTY	**TYPE 1 EPS+10 MAX+10**	**TYPE 2 EPS+16, EPS+20 MAX+16, MAX+20**	**TYPE 3 EPS+25, EPS+40[1,2]**
Thermal Resistance Minimum at 25 mm Thickness (m^2*^oC/W)	0.65[3]	0.70[3]	0.74
Water Vapour Permeance Maximum at 25 mm Thickness ($Ng/Pa*s*m^2$)	300	200	130
Dimensional Stability Maximum Linear Change (%)	1.5	1.5	1.5
Flexural Strength Minimum (kPa)	170	240	300
Water Absorption By Volume Maximum (%)	6.0	4.0	2.0
Compressive Strength Minimum at 10% Deformation (kPa)	70	110	140
Limiting Oxygen Index Minimum (%)	24	24	24

Note 1: EPS+40 products meet Type 3 thermal insulation requirements but are used where higher compressive resistance applications are required.
Note 2: EPS+40 products noted have not been evaluated to CAN/ULC S102.2 or ASTM E84 for surface burning characteristics at this product density and should not be used where in proximity to habituated space.
Note 3: See Thermal Resistance Properties table below for Superform Products MAX+ EPS product R values.

AMVIC EPS THERMAL INSULATION TYPES PER ASTM C578					
PROPERTY	**TYPE I EPS+10 MAX+10**	**TYPE VIII EPS+10 MAX+10**	**TYPE II EPS+16, EPS+20 MAX+16, MAX+20**	**TYPE IX EPS+25**	**TYPE XIV EPS+40[2]**
Compressive Strength, Minimum @ 10% Deformation (psi)	10.0	13.0	15.0	25.0	40.0
Thermal Resistance, Minimum @ 1 inch Thick ($F*ft^2*h/Btu$)	3.6[3]	3.8[3]	4.0[3]	4.2	4.2
Flexural Strength, Minimum (psi)	25.0	30.0	35.0	50.0	60.0
Water Vapor Permeance, @ 1 inch Thickness, Maximum (Perms)	5.0	3.5	3.5	2.5	2.5
Water Absorption By Volume, Maximum (%)	4.0	3.0	3.0	2.0	2.0
Dimensional Stability Linear Change, Maximum (%)	2.0	2.0	2.0	2.0	2.0
Oxygen Index,	24.0	24.0	24.0	24.0	24.0

VANCOUVER, BC: 877.461.8378 ph. | 604.527.8368 fx.
LOS ANGELES, CA: 909.483.0250 ph. | 909.483.0336 fx.
WASHINGTON, DC: 540.636.9445 ph. | 540.636.9414 fx.
TULSA, OK: 918.437.8333 ph. | 918.437.8487 fx.
TORONTO, ON 905.605.5444
SEATTLE, WA 425.512.8419
WEBSITE: WWW.QAI.ORG

Minimum (%)					
Density, Minimum (lbs/ft^3)	0.90	1.15	1.35	1.80	2.40

Note 2: EPS+40 products noted have not been evaluated to CAN/ULC S102.2 or ASTM E84 for surface burning characteristics at this product density and should not be used where in proximity to habituated space.
Note 3: See Thermal Resistance Properties table below for Superform Products MAX+ EPS product R values.

Note 2: Products noted have not been evaluated to CAN/ULC S102.2 or ASTM E84 for surface burning characteristics.

SUPERFORM EPS THERMAL INSULATION TYPES PER CAN/ULC S102.2				
SUPERFORM INSULATION	**DENSITY**	**MAXIMUM THICKNESS**	**FLAME SPREAD INDEX**	**SMOKE DEVELOPED INDEX**
Type 1, Type 2, Type 3 EPS+10, EPS+16, EPS+20, EPS+25, MAX+10, MAX+16, MAX+20	Maximum 32 kg/m^3	≤ 100 mm	≤ 230	≥ 500

SUPERFORM EPS THERMAL INSULATION TYPES PER ASTM E84[3]				
SUPERFORM INSULATION	**DENSITY**	**MAXIMUM THICKNESS**	**FLAME SPREAD INDEX**	**SMOKE DEVELOPED INDEX**
Type I, VIII, II, IX, XIV EPS+10, EPS+16, EPS+20, EPS+25, MAX+10, MAX+16, MAX+20	Maximum 2.0 lbs/ft^3	≤ 4 inches	≤ 25	≤ 450

Note 3: Ceiling measurement only. This measurement is conducted through determination of flame spread index and smoke developed index with the removal of any contribution of molten materials ignited on the floor of the tunnel assembly.

Thermal Resistance Properties for Superform MAX+ in accordance with ASTM C518

Bead Grade(s) and EPS Type	**Minimum Density kg/m^3 (lbs/ft^3)**	**Thermal Resistance @ 1 inch (25 mm) Thickness at 75°F (23°C) Mean Temperature K*m^2/W (F*ft^2*h/Btu)**	**Thermal Resistance @ 25 mm (1 inch) Thickness at 4°C (40°F) Mean Temperature K*m^2/W (F*ft^2*h/Btu)**

VANCOUVER, BC: 877.461.8378 ph. | 604.527.8368 fx.
LOS ANGELES, CA: 909.483.0250 ph. | 909.483.0336 fx.
WASHINGTON, DC: 540.636.9445 ph. | 540.636.9414 fx.
TULSA, OK: 918.437.8333 ph. | 918.437.8487 fx.
TORONTO, ON 905.605.5444
SEATTLE, WA 425.512.8419
WEBSITE: WWW.QAI.ORG

MAX+10	15 (0.95)	0.76 (4.3)	0.83 (4.7)
MAX+10 **Type 1**	18 (1.15)	0.79 (4.5)	0.84 (4.8)
MAX+16 **Type 2**	22 (1.35)	0.79 (4.5)	0.86 (4.9)
MAX+20 **Type 2**	23 (1.45)	0.81 (4.6)	0.86 (4.9)

Note:

The product must be installed in accordance with the code enforced by the authority having jurisdiction. Final acceptance of the product in the final installation is subject to inspection 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.

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.

*****