



Product Name

INSULWORKS™ LDC

April 30, 2019

Associated Specification Section

MasterFormat 1995 # 03118

MasterFormat 2004 # 03 11 26

Manufacturer's Name

Beaver Plastics Ltd.

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PRODUCT DESCRIPTION

PRODUCT FEATURES

- DESCRIPTION / BASIC USES
 - Insulworks Large Diameter Conduit (LDC) High-density EPS insulation designed to conserve energy loss from buried hydronic tubing and other liquid piping systems to 80C (180F) maximum service temperature.

- PRODUCT ATTRIBUTES AND CHARACTERISTICS
 - High compressive strength supports concrete structures, construction activity, machinery and heavy loading.
 - Efficient thermal barrier between the heated slab and underlying ground.
 - Moisture vapour permeable.
 - Contains no CFCs, HCFCs, or other refrigerant gases.
 - Biologically inert; will not support mould, mildew or fungus growth.
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 - Contains a chemical additive to inhibit accidental ignition from a small fire source.
 - Non-toxic and hypo-allergenic.

- SELECTION CRITERIA
 - Accommodates any diameter tube up to 40 mm (1-1/2") O.D.
 - Product is available in three standard sizes. Special order variations can be produced.
 - Reduces installation labour and speeds installation by eliminating the need to tie tubing down to wire mesh.
 - Available in four standard thicknesses with additional thicknesses available on request.
 - Material is easily cut.

- APPLICABLE STANDARDS, RELATED REFERENCES
 - ASTM C177 - Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.
 - ASTM C578 – Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.
 - ASTM D1621 - Standard Test Method for Compressive Properties of Rigid Cellular Plastics.



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- ASTM D2842 - Standard Test Method for Water Absorption of Rigid Cellular Plastics.
- ASTM E96 - Standard Test Methods for Water Vapor Transmission of Materials.
- CAN/ULC-S701 – Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering.
- **QUALITY STATEMENT, TESTS, CERTIFICATIONS, AND APPROVALS**
 - Performance tests certified by Intertek Testing Services.
 - CCMC, Canadian Construction Materials Centre, Evaluation 12892-L
- **LIMITATIONS**
 - High compressive strength allows EPS LDC to be buried to a depth of 6 m (20 feet).
- **SAFETY PRECAUTIONS**
 - EPS LDC will burn when exposed to large continuous flame.
 - Normal fire precautions and good housekeeping methods must be followed during storage and application.
- **AVAILABILITY**
 - Available directly from Beaver Plastics.
- **COST**
 - Varies with substrate condition and configuration, and relative size of building.
 - Consult manufacturer or authorized distributors for specific product costs or budget pricing.

PRODUCT PROPERTIES

- **MATERIALS, COMPOSITION, PROPERTIES**
 - Material: Rigid closed cell, expanded polystyrene (EPS) board, Type 2 to CAN/ULC-S701 and ASTM C578.



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- Performance
 - Compressive Strength: 110kPa (16 psi)
 - Flame spread index / Smoke Developed Index: Less than 25/450 to ASTM E84.
 - Thermal resistance: RSI 0.70/25 mm (R-4.04/inch).
- DIMENSIONS
 - Standard board sizes available in three widths and thicknesses:

INSULATION VALUE	WIDTH	HEIGHT	LENGTH
1.4 RSI (R-8)	225 mm (9")	50 mm (2")	1220 mm (48")
2.7 RSI (R-10)	250 mm (10")	65 mm (2-1/2")	1220 mm (48")
2.1 RSI (R-12)	275 mm (11")	75 mm (3")	1220 mm (48")

PRODUCT PLACEMENT

- INSTALLATION
 - Verify surface is ready to receive insulation.
 - Surfaces must be smooth, dry and ready to receive insulation
 - Install products in accordance with the manufacturer's instructions.
 - Cover exposed insulation with a finish acceptable to local building authorities.
- COVERAGE
 - Two boards, each 1220 mm (48") long, clam-shelled together, will produce a 1200 mm (4 lineal feet) section of Insulworks LDC.



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PRODUCT DESCRIPTION

Corporate Identification

Beaver Plastics

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Technical Services Available

Phone toll free or e-mail (see above)

Classification and Filing

MasterFormat 2004:

03 11 26 – Hydronic Tubing Insulation

MasterFormat 1995:

03118 – Hydronic Tubing Insulation

Uniformat 1998:

A1030

END OF SECTION