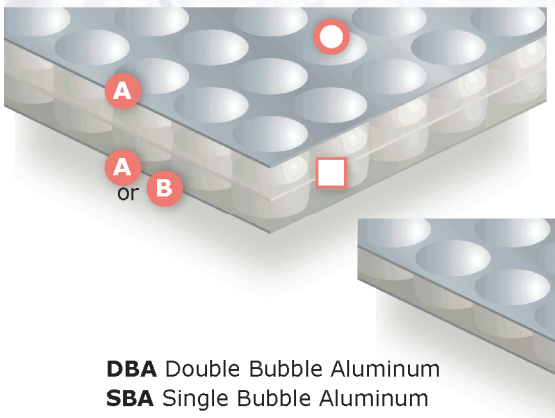
HIGH PERFORMANCE

REFLECTIVE INSULATION

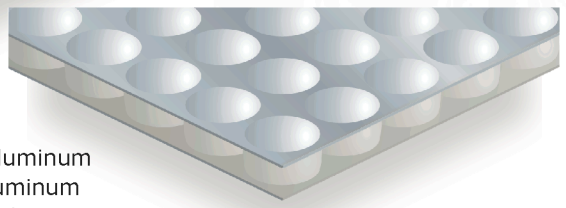
WHAT IS IT MADE OF?

- **A ALUMINUM** – Provides excellent heat reflection
- **B WHITE POLYETHYLENE** – Increases resistance to abrasive materials (e.g. concrete)
- **CLEAR POLYETHYLENE** – Acts as a vapour and air barrier
- **AIR BUBBLES** – Provide thermal insulation



DOUBLE BUBBLE
DBA - DBW

SINGLE BUBBLE
SBA - SBW



DBA Double Bubble Aluminum
SBA Single Bubble Aluminum
DBW Double Bubble White
SBW Single Bubble White

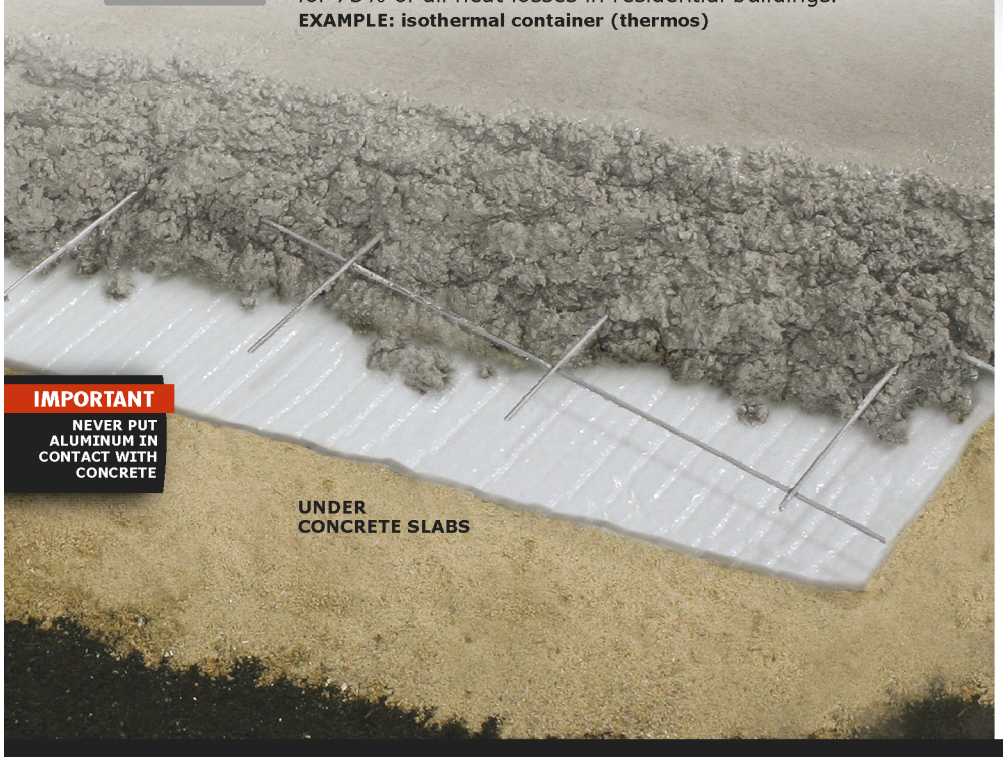
Duchesne's reflective insulation contributes to breaking thermal transfers that are responsible for about 75% of all heat loss in residential buildings.

Here are three types of thermal transfer:

CONDUCTION
Thermal transfer through a solid body or two conductive bodies that are in contact. Advantage of Duchesne reflective insulation: air bubbles reduce conduction.
EXAMPLE: stove or oven

CONVECTION
Fluid movement *(e.g. air, water)* which under the influence of temperature variations will transport heat. Advantage of Duchesne reflective insulation: reduces the movement of air within structures.
EXAMPLE: convection oven

RADIATION
Heat, under the form of electromagnetic waves, propagates from a high to a low temperature body. Advantage of Duchesne reflective insulation: contributes to reducing heat losses by radiation, which accounts for 75% of all heat losses in residential buildings.
EXAMPLE: isothermal container (thermos)



UNDER CONCRETE SLABS

Easy and Safe Installation

The only things you will require for installation are a utility knife, a tape measure, a stapler and especially your safety glasses.

Here are some useful basic principles:

- Before any renovation, one must remove the original vapour barrier before installing any reflective insulation. Furthermore, make sure that the surface you will insulate does not require any repairs.
- The R value increases when you leave an air space on the aluminum side. The air space should never be less than 16 mm (0.6 in.).
- Maintain perforations in your insulation to a minimum. If you have wiring to do, it is recommended to let the wires run in the air space, behind the reflective insulation, in order not to reduce the insulation's efficiency. Once the reflective insulation is installed, make sure that all the openings are well covered with the proper finishing tape.
- Apply the recommended finishing tape so that it adheres perfectly to the insulation.
- The application of a sealant bead is recommended around electrical boxes and power outlets in order to prevent air infiltration.
- We recommend the use of stainless steel staples for the installation of reflective insulation inside agricultural buildings.

For each application, the installation instructions are provided on the back of the appropriate product label.

WATER HEATER COVERING

AROUND PIPING AND VENTILATION DUCTS

UNDER FLOORING

INSULATION PERFORMANCE **COMPARISON** CHART

	DUCHESNE REFLECTIVE INSULATION	152.4 mm (6 in.) thick FIBERGLASS	101.6 mm (4 in.) thick CELLULOSE	19.05 mm (3/4 in.) thick RIGID INSULATION
Reflectivity	**97%**	5 to 10%	5 to 10%	5 to 10%
Emissivity	**.03**	.90 to .95	.90 to .95	.90 to .95
Condensation and mildew	**NONE**	yes	yes	yes
Shrinkage / Compaction	**NONE**	yes	yes	yes
Health hazard	**NONE**	caution	none	none
Special clothes	**NONE**	required	required	-
Water contact damage	**NONE**	yes	yes	yes
Protection against radon	**YES**	NO	NO	NO
Reduces the rate of flame spread	**YES**	-	-	-

DUCHESNE
BUILDING MATERIALS

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