Air Barrier:

Research show that 40% of building heat loss can be attributed to air leakage conducted through the building envelope. Tests for air leakage conducted by an independent laboratory recognized by the CCMC show that **POLARFOAM PF-7300-0 SOYA** exceeds 500 times the requirements of the NBC as an air barrier material.

These results confirm that POLARFOAM PF-7300-0 SOYA is one of the highest performance air barrier materials on the market and this feature is the key element in an air barrier system that meets the objectives of the NBC.

By creating a sealed air barrier and eliminating air exfiltration, **POLARFOAM PF-7300-0 SOYA** does not allow wall condensation that can often result in mold, mildew and wall degradation. **POLARFOAM PF-7300-0 SOYA** fully adheres to provide a seamless, monolithic air barrier that conforms to irregular shapes and allows easy detailing around penetrations. Its closed cell rigid polyurethane foam formulation creates an **effective, rigid, seamless and durable** air barrier.

- **National Building Code requirements :**
  Air barrier material = 0.02 L / (s.m^2) @ 75 Pa
- **Tested results of POLARFOAM PF-7300-0 SOYA :**
  Air barrier material, thickness 25 mm = 0.00004 L / (s.m^2) @ 75 Pa

Vapour Barrier:

Water vapour permeance is the speed to which water goes through an homogeneous material. The National Building Code, stipulates that a vapour barrier must have a water vapour permeance less than 1.05 PERM (60 ng/Pa•s•m^2).

- 75 mm of **POLARFOAM PF-7300-0 SOYA** spray applied on an exterior gypsum board = 44 ng / Pa•s•m^2 (0.77 PERM).
- 75 mm of **POLARFOAM PF-7300-0 SOYA** spray applied on concrete blocks = 22 ng / Pa•s•m^2 (0.38 PERM).

When a building envelope assembly contains only a plastic foam as insulating material and that the permeance rate of this assembly is less than 1.05 PERM (60 ng / Pa•s•m^2), this assembly does not need any additional vapour barrier.

As far as sustainability of the building envelope is concerned, it is imperative to have a perfect continuity of the air barrier material which is much more important than the performance of the vapour barrier.

POLARFOAM PF-7300-0 SOYA
URETHANE FOAM INSULATION MATERIAL

Polyurethane Foam Systems Inc.

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GREENGUARD Indoor Air Quality Certified

A HIGH PERFORMANCE PRODUCT APPLIED EXCLUSIVELY BY LICENSED PROFESSIONALS.

The CCMC assigned design thermal resistance is 1.05 RSI per 25.4mm or R6 per inch. The user should verify the local fire and building regulations for covering the surface of spray applied polyurethane insulation to protect it against fire, excessive heat and excessive moisture. The foam product made from these chemicals is combustible. Do not expose to flames or other ignition sources. The information, recommendations and data contained in this document are believed to be accurate, however, no warranties, guarantees or representations of any kind or nature whatsoever are made as to the accuracy, completeness or suitability thereof any specific purpose and PFSI Inc. makes no warranty of results to be obtained thereof or that such use will not infringe any patent. It is expressly understood that PFSI Inc. shall not be deemed or held liable upon or under any representation, recommendation or data herein.

POLARFOAM PF-7300-0 SOYA
URETHANE FOAM INSULATION MATERIAL

- ZERO OZONE DEPLETION SUBSTANCE
- RECYCLED PLASTICS
- VEGETABLE OIL
- ECOLOGICAL INSULATION

The **All-In-One** Wall System

- Air Infiltration – A Vicious Circle
- In cool weather, heat escapes
- In warm weather, cool air escapes
- Air infiltration takes away your energy efficiency

INSULATION, AIR BARRIER & VAPOUR BARRIER

CCMC Approved Insulation Material, Air Barrier Material #13244-L and Vapour Barrier

Polyurethane Foam Systems Inc.

INSULATION MADE FROM *RECYCLED PLASTICS* AND *SOYA*

The All-In-One Insulating and Air Barrier Wall System

POLARFOAM PF-7300-0 SOYA

proven performance

THE PERFECT SOLUTION TO BUILDING INSULATION DESIGN PROBLEMS

POLARFOAM PF-7300-0 SOYA is being used by Architects to design buildings that are attractive and comfortable for the occupants, inexpensive to operate and maintain and remain so for the life of the building. **POLARFOAM PF-7300-0 SOYA** insulating foam solves building insulation design problems for architects, because it combines proven thermal protection while also offering superior air barrier properties.

IDEAL FOR NEW OR RETROFIT CONSTRUCTION

POLARFOAM PF-7300-0 SOYA is a spray applied cellular plastic that forms a continuous, monolithic barrier on walls, around corners, and on all contoured surfaces, and protrusions. It adheres directly to the substrate forming a seamless permanent coverage over and around even the most difficult shapes. The **POLARFOAM PF-7300-0 SOYA** System is ideal for insulation either new or retrofit construction projects.

Due to its fast installation, **POLARFOAM PF-7300-0 SOYA** decreases your construction costs while increasing the energy efficiency of your building envelope. The installation of 75 mm of **POLARFOAM PF-7300-0 SOYA** on the exterior side of the walls can reduce up to 50% the energy consumption for heating or cooling purposes and increases the occupants comfort.

ENERGY EFFICIENT INSULATING MATERIAL WITH HIGHEST R-VALUE RATING

the science behind the science

POLARFOAM PF-7300-0 SOYA SUSTAINABLE DEVELOPMENT

POLARFOAM PF-7300-0 SOYA an environmentally friendly high performance, closed cell rigid polyurethane foam used for insulation, is spray-applied exclusively by certified applicators in accordance with the standards CAN/ULC S705.2 (Standard for Thermal Insulation Spray Applied Rigid Polyurethane Foam, medium density – Applicator's responsibilities) with third party quality control inspection throughout Canada.

POLARFOAM PF-7300-0 SOYA is fully self-adhered to the substrate which makes your building much stronger and much stiffer. There is no air space between the insulation material and the substrate, no joints, no glue, no mechanical fasteners and no convection air movement. With **POLARFOAM PF-7300-0 SOYA**, you get 100% of the insulating value during the lifetime of the building.

POLARFOAM PF-7300-0 SOYA is ideal for use in walls, below grade exterior applications and cathedral ceilings. In addition scientific tests prove that **POLARFOAM PF-7300-0 SOYA** resists molds and mildew and does not contribute in any way to their growth.

POLARFOAM PF-7300-0 SOYA has been designed for use in the following building types:

- Commercial
- Residential
- Industrial
- Agricultural
- Institutional

THE IDEAL BUILDING ENVELOPE SYSTEM!

POLARFOAM PF-7300-0 SOYA is a system used to create a highly effective envelope which includes these three essential elements in one application:

- A High R value
- A Perfect air barrier
- A vapour barrier

INSULATION:

Independent laboratory tests confirm the on site long term thermal performance of **POLARFOAM PF-7300-0 SOYA**. Using **POLARFOAM PF-7300-0 SOYA** spray foam insulation in the building envelope system increases thermal performance of the building envelope. The long term minimum insulating value is : (R–6 / 1") RSI 1.05 / 25 mm.

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