

# IZOROUTE TYPE 1

(FOR LIGHTWEIGHT FILL)

## Description:

IZOROUTE is made of expandable polystyrene pearls that contain a retarding fire agent. Under the effect of vapour, the agent produces multicellular particles or pre-dilated beads, resistant to water, that can dilate up to 40 times their original volume.

The inflating agent escapes from the bead and is replaced by air after an intermediate period, the beads are steam-molded into blocs. The blocs are cut into sheets, plates or any other form, after a curing period.

## Technical description of the finished product : IZOROUTE TYPE 1

### Typical block size

2' x 4' x 8' (609,6 mm x 1219,20 mm x 2438,40 mm)  
Other size and shapes available.

### Thermal resistance

(ASTM C518 C177), for a thickness of 1" (25,40 mm) : R-3.70 (RSI-0,65)

### Dimensional stability

(ASTM D 2126), for a thickness of 1 1/2" (38 mm) : 0.32%

### Compressive strength

(ASTM D1621), for a thickness of 1 1/2" (38 mm) : 93.00 KPa (13.53 lbs/in.)

### Torque resistance

(ASTM C 203), for a thickness of 1 1/2" (38 mm) : 209,80 Kpa (30.52 lbs/in.)

### Water absorption

(ASTM 2842) for a thickness of 1 1/2" (38 mm) : 4.4%

## Buy with complete confidence:

The industry has voluntarily built a quality assurance program through a third party known as The Underwriters Laboratories of Canada (ULC) which helps the manufacturers control the compliance and conformity of their products with Canadian standards.

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The consumers, architects, engineers, spec writers, road builders, owners, real estate administrators, consultants, housing contractors, roofers and insulation contractors may benefit from this program by specifying the purchase of a product identified to this effect.

## In accordance with the construction material evaluation standard:

IZOROUTE is certified by ULC and in accordance to the standard **CAN/ULC-S701-01** established by the Underwriters Laboratories of Canada, for the expanded polystyrene thermal insulation. Technical evaluation data sheet CCMC #13026-L for IZOROUTE TYPE 1.

## SUPERIOR CHARACTERISTIC

### Permanent insulation value :

IZOROUTE was submitted to 75°F temperature and it preserved its permanent thermal value. The R value of IZOROUTE is permanent thanks to its alveolar structure that only contains stabilized air. **Time doesn't affect the efficiency of IZOROUTE.**

### Humidity resistance :

Among all the polymer plastics used for insulation, IZOROUTE is one of those who has the best resistance to the noxious effects of humidity. Even with its low water vapour transmission factor, IZOROUTE is **not a vapour barrier** because it stays relatively permeable. It's **sealed alveolar** uniform structure allows the diffusion of passing water vapour.

## **IZOROUTE TYPE 1 (continued)**

### **Permanence :**

It represents no nutritional value for plants, animals or micro-organisms. It doesn't rot and resists to mildew.

### **Low toxicity :**

Rigorous tests were done on expanded polystyrene to define if there is a risk of toxicity when exposed to flame. A flammability report on expanded polystyrene was published by the National Council of research of Canada to Ottawa. « The factor of toxicity maximum obtained by the combustion of expanded polystyrene is similar to the one obtained by the combustion of wood. Therefore at equal weight the risk of toxic combustion is comparable to wood. »

## **USE NOTE**

### **FIRE RESISTANCE :**

As per most construction materials that are used today, IZOROUTE and all other organic materials manufactured from expandable polystyrene beads, must be considered flammable when directly exposed to high heat energy or to a massive, continuous fire source. The Building national Code of Canada must be respected to assure an appropriate protection.

### **Solvent effects :**

IZOROUTE is vulnerable to petroleum based solvents. Contact with such solvents or their vapours must be avoided.

### **Vapour barrier :**

Although IZOROUTE provides a high level of moisture resistance and moderate water vapour permeability, normal design practices should be followed in the selection of the vapour barrier.

### **UV degradation**

Prolonged exposure to sunlight will cause a slight discoloration and surface erosion of IZOROUTE insulation. The insulating properties will not be significantly affected unless exposure is so excessive that thickness is lost. To prevent UV ray degradation installed IZOROUTE insulation should be covered as soon as possible.