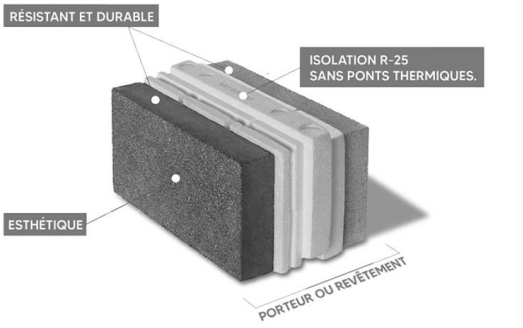
ISOBLOC ZERO
INSULATED MASONRY

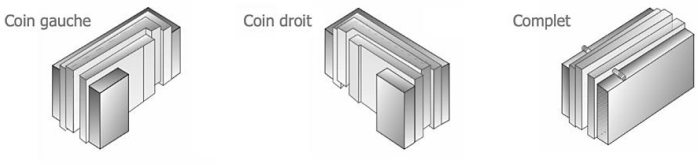
Product Sheet

Description

Isobloc Zero is an insulated masonry unit composed of two solid concrete walls and an expanded polystyrene core. The concrete walls are the structural components of the masonry unit. The expanded polystyrene core is molded to hold the block walls and allow the units to fit together to create a continuous insulating wall without thermal breakage.



The "Isobloc" construction system consists of three concrete masonry elements: a standard block, right-angled blocks, and left-angled blocks. Corners are available as internal and external corners.



Made in Canada

Isobloc is proudly produced in Canada in collaboration with Canadian companies.

Effective thermal resistance

An Isobloc wall has an R-25 value without any thermal bridges.

Use

*Refer to the design guide for more information on the use of Isobloc in all its applications.

Finishes and colors

The exterior and interior finishes of Isobloc units can be customized and are pre-assembled according to the requested specifications.

*Refer to the color and finish guide for all available standard colors.

CarbiCrete © Technology

The patented technology makes it possible to produce decarbonized concrete without cement and from industrial by-products and captured carbon dioxide.

The production of cement-free concrete generates a global warming potential (GWP) of 11.7 kg $_{CO2}$ eq . per cubic meter of concrete, 20 times lower than the industry average. **An Isobloc Zero block is therefore 20 times less polluting than a standard Isobloc block!**

For full details, an Environmental Product Declaration is available upon request.

CarbiCrete

Contributes to projects seeking LEED or Zero Carbon certification

PROPERTIES OF THE EXPANDED POLYSTYRENE CORE

Properties	Methods	Results	Units
Thermal resistance @ 23.9°C (75°F) RSI per 25mm (R/in)	ASTM C518	0.74 (4.2)	RSI m2 •°C/W/25 mm (R) (°F•ft2 •h/Btu/in)
Maximum water vapor permeability	ASTM E96	130 (2.3)	ng/Pa.s.m2 (perm)
Stability max. dimensional	ASTM D2126	1.5	%
Max water absorption .	ASTM D2842	2	%
Max. linear expansion coefficient	ASTM D696	6 X 10-5 (3.5 X 10-5)	mm/mm/°C (in/in/°F)
Temperature max. usage	CONSTANT	75 (167)	°C (°F)
	INTERMITTENT	82 (180)	°C (°F)
Density	-	25 (1.85)	kg/m³ (pcf)

*The results shown above are for polystyrene tested alone. The results do not take into account the complete assembly.
**This product meets the requirements of CAN ULC S701.1, Type 3.

PROPERTIES OF CONCRETE WALLS

Properties	CSA 165.1	Results	Units
Compressive strength	> 15	> 15	MPa
Absorption	< 175	133.6	kg/m3
Density	> 2000	2183	kg/m3

*The results shown above are for a concrete wall tested alone. The results do not take into account the complete assembly.
**This product meets the requirements of ASTM C90 and CSA 165.1 standards

PHYSICAL PROPERTY OF THE ZERO ISOBLOCK ASSEMBLY

Properties	Methods	Results	Units
Effective thermal resistance of the assembly	Method of calculating isothermal planes and parallel path	4.41 (25.05)	RSI m2 • °C/W/25 mm (R) (°F • ft2 • h/Btu/in)
Sound transmission index:	ASTM E413	45	STC

*This product meets the requirements of CAN ULC S701.1, Type 3.

ADDITIONAL INFORMATION

Dimensional tolerances
According to CSA A165.1 standard
±2 mm in all directions

Dimensions

Description	Width x mm (in)	Height x mm (in)	Depth mm (in)
Complete block	390 (15 3/8'')	190 (7 1/2'')	240 (9 1/2'')

All mortar joints should be approximately 10mm (3/8'') to achieve a module of 400 x 200 (16'' x 8'').

Green construction and eco-responsibility:
Contributes to projects seeking LEED certification. Meets 4 design criteria.
Environmental Product Declaration for expanded polystyrene core available upon request.

WWW.ISOBLOC.COM