

Pavement insulation. A basis for action.

Updated October 1, 2026

BLC develops lightweight insulating concrete technology and transfers it to industrial partners. This brief presents public information for an initial discussion with a municipality, designer or producer.

Status confirmed by MTQ

In its replies of September 10, 11 and 15, 2026, MTQ confirms “produit éprouvé” status for pavement insulation. Evaluation of that use is complete; a pilot project was not required to complete it.

Recognition applies to the evaluated formulation and use. It does not cover lightweight fill, classified as “produit non retenu”, and is neither a purchase commitment nor automatic approval of every pavement design. Design and contract requirements remain project-specific.

Results for the evaluated material

Property	Documented result
Dry density	559 kg/m ³
Compression at 24 h / 28 days	2.0 / 3.9 MPa
Dry thermal conductivity	0.1691 W/(m·K)
Freeze-thaw, ASTM C666 B	300 cycles; relative modulus 86.5%

MTQ 2014-2015 and Exova 2014 tests. Values relate to the tested samples and formulation; they are not universal design values.

A configuration to be designed.

Twelve inches of BLC, drainage and asphalt

BLC's proposed configuration places 12 inches (30.48 cm) of lightweight concrete on prepared subgrade, followed by a thin drainage aggregate layer and asphalt. It has no granular foundation below BLC. The economic model's 5 cm drainage layer and 19 cm asphalt thickness are costing assumptions, not universal specifications.

The 2020 InnovAct study examines a 300 mm BLC layer in designs with more granular material. The historical MTQ clause provides for 450 mm of granular cover. These sources support analysis of the material and a thickness close to 12 inches; they do not by themselves validate the thin assembly for every soil and traffic condition.

Placement

Proposed sequence: prepare and excavate, place BLC, observe the scenario's 24-hour waiting period, then place and compact the thin drainage layer before paving. BLC itself is described as self-compacting and placed without compaction. Mix suitability, curing and acceptance criteria for subsequent operations are specified for the project.

Placement rate and total schedule

For a road 7 m wide with 12 inches of BLC, advancing 500 m per day requires about 1,067 m³ actually placed each day. At 7.50 m wide, the same rate requires 1,143 m³/day. These are calculated targets to be confirmed against production, transport and pumping capacity.

Two productive days of placement do not represent the full construction schedule. Excavation, drainage, curing, asphalt, inspections and associated works must be added. The historical 2 MPa result at 24 hours does not automatically authorize equipment traffic.

Sources: September 2020 InnovAct study; MTQ clause dated February 5, 2015; BLC scenarios dated September 24 and 26, 2026. Recent sequences and rates are construction-planning assumptions.

Build a tailored proposal.

Compare equivalent service

Costs are compared at project level: excavation, materials, transport, placement, drainage, maintenance and construction constraints. September 2026 work distinguishes several soil and design contexts to support a project-specific analysis.

BLC provides a project-specific economic study following an initial technical discussion. Supply prices, manufacturing costs, margins, licensing terms and detailed industrial assumptions are reviewed directly with the relevant parties under an agreed confidentiality framework.

Licensed production

The licence covers manufacturing and commercialization in an agreed territory and for agreed applications. It includes know-how transfer, training, quality controls and technical support defined by contract. Commercial terms are established directly with each partner.

Prepare the first discussion

Municipalities and designers: describe the project type, location, dimensions, soil, traffic, drainage and schedule. Producers: describe the territory, facilities, capacity and target market.

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Reference documents

Source: MTQ correspondence, file GUQ-01788, September 2026; recognition letter dated March 19, 2015.

MTQ, laboratory test results dated February 3, 2015; Exova, report 14-06-M0326 dated September 30, 2014.

Baaj, Tavassoti, Dias and Lorena, InnovAct Consulting, September 2020: study of flexible pavements incorporating lightweight concrete.

BLC: planning dossiers dated September 23, 24 and 26, 2026. Detailed commercial information and formulation are excluded from this public brief.