

Litecrete Lightweight Precast and Sustainable Building

Litecrete lightweight concrete is a friend of the environment in all stages of its life span, from raw material production to demolition. Here are some of the reasons why:

Resource efficiency

The pumice aggregate used in Litecrete is available in large quantities and is recovered from open-cast deposits using minimal energy. The development of pumice concrete utilises an abundant material which otherwise, apart from being used in small quantities for horticulture and for ageing denim fabric, is look upon as a waste material.

Durability

Litecrete builds durable, long-lasting structures that will last in excess of 100 years. Litecrete meets Building Code requirements for structural components with a minimum 50-year durability.

Thermal mass

Litecrete cladding panels, at 220 mm thick, provide an inbuilt insulation value of R0.8; five times more energy efficient than the equivalent thickness of normal precast concrete. This assists in reducing HVAC costs.

Fire resistance

A 150 mm thick Litecrete panel has a fire resistance rating of 240/240/240.

Acoustics

STC 47 is achieved with a 150 mm thick panel; STC 60 can be achieved by fixing metal furring strips, an insulation blanket and plasterboard to one face.

Shipping

Litecrete is half the weight of normal precast concrete at 1300 kg/m³. This means twice the volume can be shipped, saving shipping costs and energy emissions from less deliveries.

Craneage

The light weight of Litecrete can often mean smaller cranes can be considered for unloading and site movements.

Minimal waste

Litecrete can be produced in the quantities needed for each project, reducing waste. After a Litecrete structure has served its original purpose, the concrete can be crushed and recycled into aggregate for use in new concrete pavements or as backfill or road base and the reinforcing steel can be recycled.

Healthier Environment

VOC emissions from concrete building products are much lower than those for most other building materials. Exposure to toxic mould in buildings has been blamed for ailments ranging from headaches to severe respiratory infections and immune system disorders. Litecrete lightweight precast walls won't rot and won't support the growth of toxic mould.

