

External Finishing Systems

The beauty of a Litecrete home is that it requires far less work on the part of the homeowner to keep it looking like new. Some Litecrete homes have a plaster system on the exterior while others have a hi-build paint system. Litecrete walls breathe, allowing water vapour (condensation) to move through the wall to the outside. Therefore, vapour-permeable plaster and paint systems are recommended. All of this translates into a Litecrete home costing a little more to purchase than a timber-frame home, but a lot less to maintain over the long term.

Part of maintaining a home over the course of its lifetime involves repair of damage from such elements of nature as rain and high winds. This doesn't happen with Litecrete homes, which are also able to cope with the destructive forces of earthquakes. Dry rot is actually a disease, common to timber and caused by fungi. Dry rot does not affect lightweight concrete and is therefore not a worry for the owners of a Litecrete home. You will never, ever, experience "Leaky Home Syndrome" with a Litecrete home. Litecrete external walls offer the designer a range of finishing options.

Paint

Sometimes known as "coatings" on exterior applications, there are purpose-made concrete paint finishes available from all of the major paint manufacturers. Most systems consist of a primer/sealer coat plus two top coats. This is probably the most cost-effective method of decorating Litecrete panels. Some brands, such as Resene, offer Resitex, a sprayable system which provides a texture to the surface (see Resitex photo). Note that the V-joints between the panels are "expressed" rather than filled and painted, and become a feature.

Plaster

If a plaster finish is specified only a minimal plaster thickness (1-2 mm) is required before being painted, unless a heavy surface texture is required. This is a very popular method of finishing concrete panels. There are numerous manufacturers whose systems consist of a sealer coat, levelling coat, texture coat and two acrylic top coats. Because Litecrete panels are cast on steel beds the exterior surface is very true. This means that the levelling coat is not required. The joints in this case would be filled in during the plastering process, rather than being "expressed" and should be treated as "control joints", to cope with any structural movement such as earthquakes, etc. This results in a "monolithic" appearance.

Clear sealer

From time to time a natural concrete look is required on the exterior. However, because Litecrete is manufactured from materials such as pumice, no one panel is exactly the same. Colour variation from panel to panel, aggregate shadow, and other surface imperfections can be experienced. These are the result of natural ingredients and the concrete manufacturing process and are not considered as defects. The reinforcing steel cages are positioned 50 mm off the mould surface using plastic "chairs" (see photo). Sometimes the chair feet can be seen in the panel surface as four 3mm light grey dots. As the concrete surface can pick up airborne grime over time, a matt finish vapour-permeable clear sealer should be applied after installation to make for easier cleaning down of the panels. If a plain, consistent grey colour without natural imperfections is required, then a painted surface should be considered. We suggest inspecting panels at our plant before making a final decision.



The smooth exterior face of Litecrete panels is the result of being cast on steel beds. This means that once installed the panels are ready to be painted. However, vapour-permeable coatings (paint), plaster or clear sealer systems should be used. We recommend systems that have been BRANZ appraised and/or meet the NZBC requirements.

Typical Plaster systems:

Mapei Silancolor Tonachino for lightweight concrete panels (www.mapei.co.nz)
Sto plaster system for lightweight concrete panels (www.sto.co.nz)
Sika Architexture (www.sika.co.nz)

Coating (paint) systems:

Mapei Elastocolor
Resene X200 for lightweight concrete exteriors
Dulux Acratex Acrashield

Clear Sealer Systems:

Mapei Antipluviol
Protect Crete Australia "Densi-Proof"
Sto brand "StoPur WV200"

The exterior plaster/coating/sealing systems must comply with the relevant clauses of the NZBC. In all cases the manufacturers' application and maintenance instructions must be followed, with particular attention given to the following areas:

- Weathering, flashing and sealing systems at door and window openings, junctions with other materials and any other penetrations of the exterior envelope. The ground/foundation/floor/wall interface. Particular care needs to be given to ensure that minimum distances between ground and floor level, as stated in NZS 3604:1999, are met.
- External plaster systems are installed and cured within the temperature limitations, climatic and curing conditions set by the manufacturer. The finished external plaster system is sealed and protected from the weather with a vapour-permeable coating system.



Resene Resitex is a Resene X200 paint system applied with a spraygun



Sand Float is a popular, trowelled-on textured plaster finish available in several grades from light to heavy