

lime|green

Silic8 AeroGel Adhesive

Installation Details for Internal Wall Insulation



Introduction

Silic8 AeroGel Adhesive is a water-based, alkaline mineral adhesive and primer, designed for use with AeroGel fleece, boards or tiles.

Silic8 AeroGel Adhesive has two key functions:

1. To adhere the AeroGel insulation to the substrate
2. To prime the AeroGel insulation before applying Solo Onecoat Lime Plaster

Silic8 AeroGel Adhesive remains vapour open while bonding with a wide variety of substrates*, including historic plaster, stone, brick, and other mineral substrates.

A full bed of Duro and Silic8 Aerogel Adhesive creates an air barrier while remaining capillary and vapour open to wick moisture away. This reduces the risk of damp or rot caused by the cold air that circulates within gaps between or behind insulation boards.

For particularly porous surfaces, Silic8 Penetrating Primer can be used first to reduce suction and stabilise the background, or use it to dilute with Silic8 AeroGel Adhesive (up to a maximum of 10% dilution).

It is important to remember that when you fit internal insulation, there is less heat getting into the wall. This makes the wall, including any exposed, un-insulated surface, colder than before and more likely to result in the formation of condensation within the wall.

*We do not take responsibility for compatibility with any of the suggested or unlisted substrates types. Substrates should be tested for suitability before use, for which we accept no liability for misuse or failures outside our control, or for consequential loss howsoever arising.

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Thermal Improvement

10mm of insulation in the reveals and head is more effective at saving energy than doubling the main insulation on the wall when installed correctly.

		9" brick wall	13.5" brick and a half wall	500mm limestone wall
No Insulation	U Value (W/m ² K)	1.65	1.34	1.40
5mm Aerogel Blanket	U Value (W/m ² K)	1.07	0.93	0.96
	K Value = 0.015 W/mK			
	% improvement	35 %	30 %	31 %
10mm Aerogel Blanket	U Value (W/m ² K)	0.79	0.71	0.72
	K Value = 0.015 W/mK			
	% improvement	52 %	47 %	48 %

Suitable Substrates

System should be applied to:

- ✓ Substrates which are clean, dry and free from loose material
- ✓ Flat and level backgrounds

System should not be applied to:

- ✗ Damp or salt laden walls
- ✗ Non-breathable backgrounds e.g. emulsion paint, gypsum plaster etc
- ✗ Contaminated surfaces

Silic8 Aerogel Adhesive is not suitable for bonding the Aerogel Insulation to non-porous existing plasters.

NB: Mineral backgrounds which are sound, but highly porous or dusty should be treated with Silic8 Penetrating Primer.

Consumption

Levelling Coats:

Ultra or Duro can be used as levelling coats before installing Aerogel Insulation. This should be done before the insulation is installed and cannot be done with Solo One Coat Lime Plaster.

X1 25 bag of Duro will cover 1.5m² @ 10mm thick
 x1 10kg bag of Ultra will cover 1.5m² @ 10mm thick

Silic8 Aerogel Adhesive (as adhesive and primer)

Adhesive: Should be applied with a 4mm notched spreader

Primer: Should be applied with a trowel approximately 1mm thick.

	AS ADHESIVE	AS PRIMER	AS ADHESIVE & PRIMER
9KG TIN	2.25m ²	4.5m ²	1.5m ²
20KG TIN	5m ²	10m ²	3.3m ²

Solo One Coat Lime Plaster:

X1 25 bag of Solo One Coat Lime Plaster will cover approximately 2.5m² @ 6mm thick
 x1 25kg bag of Solo One Coat Lime Plaster will cover 1.5m² @ 10mm thick

Solo Mesh:

Solo Mesh should be used when Solo is applied over two different backgrounds, and when solo is applied at a thickness of 10mm.

Fixings

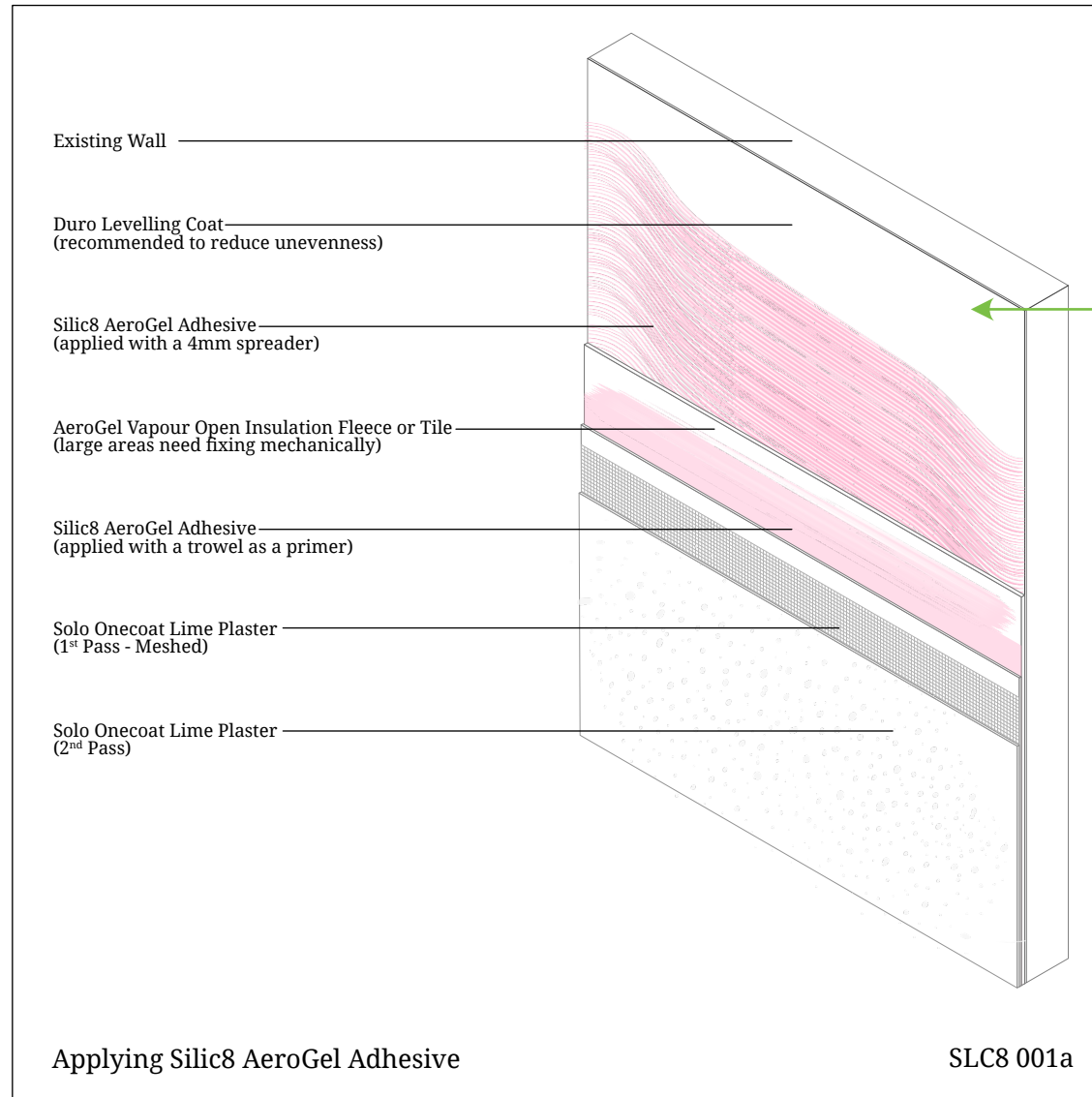
Areas up to 1 full sheet of Aerogel Insulation do not require the use of fixings. This is only suitable when installing Aerogel Insulation on vertical walls and not at height (e.g. in an atrium up to 8m high).

It is important to use fixings when

1. Installing Aerogel Insulation above 2000mm.
2. Installing Aerogel Insulation over large areas (1 full sheet or larger)

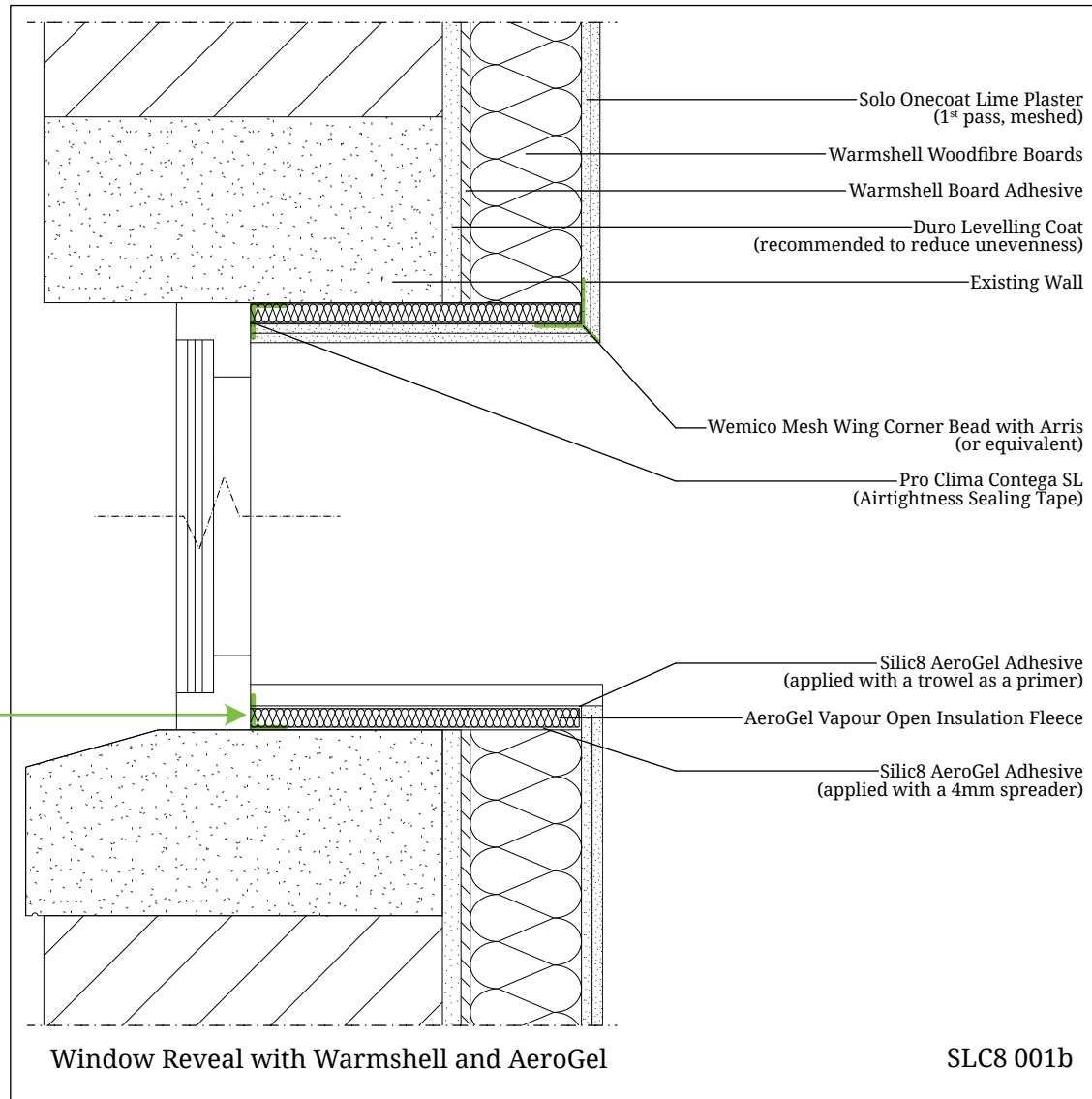


Architectural Details - With Notes



If additional thermal performance is required, Lime Green Duro can be substituted for Lime Green Ultra Lime Plaster, a light-weight, insulating base coat.

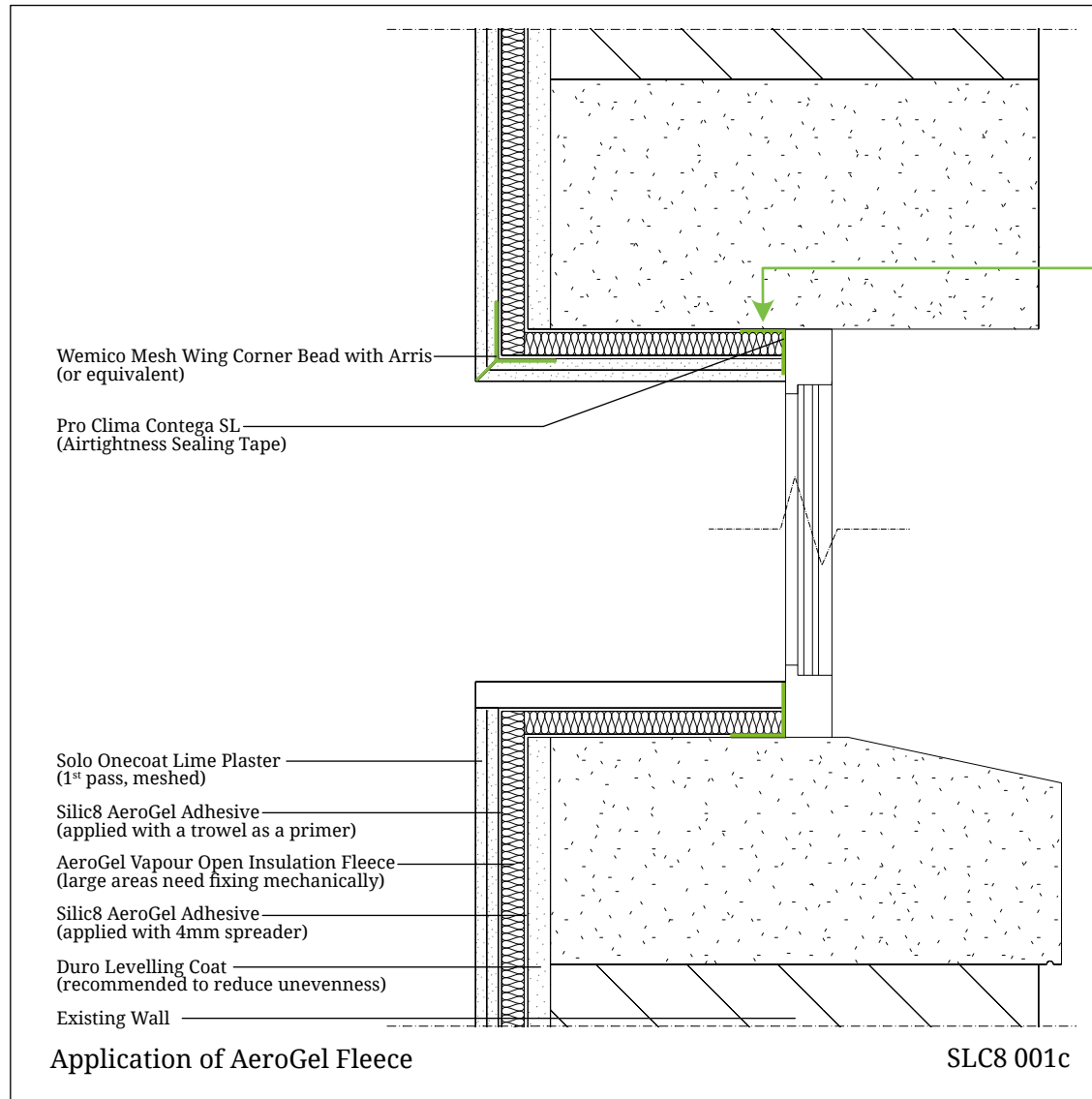
Architectural Details - With Notes



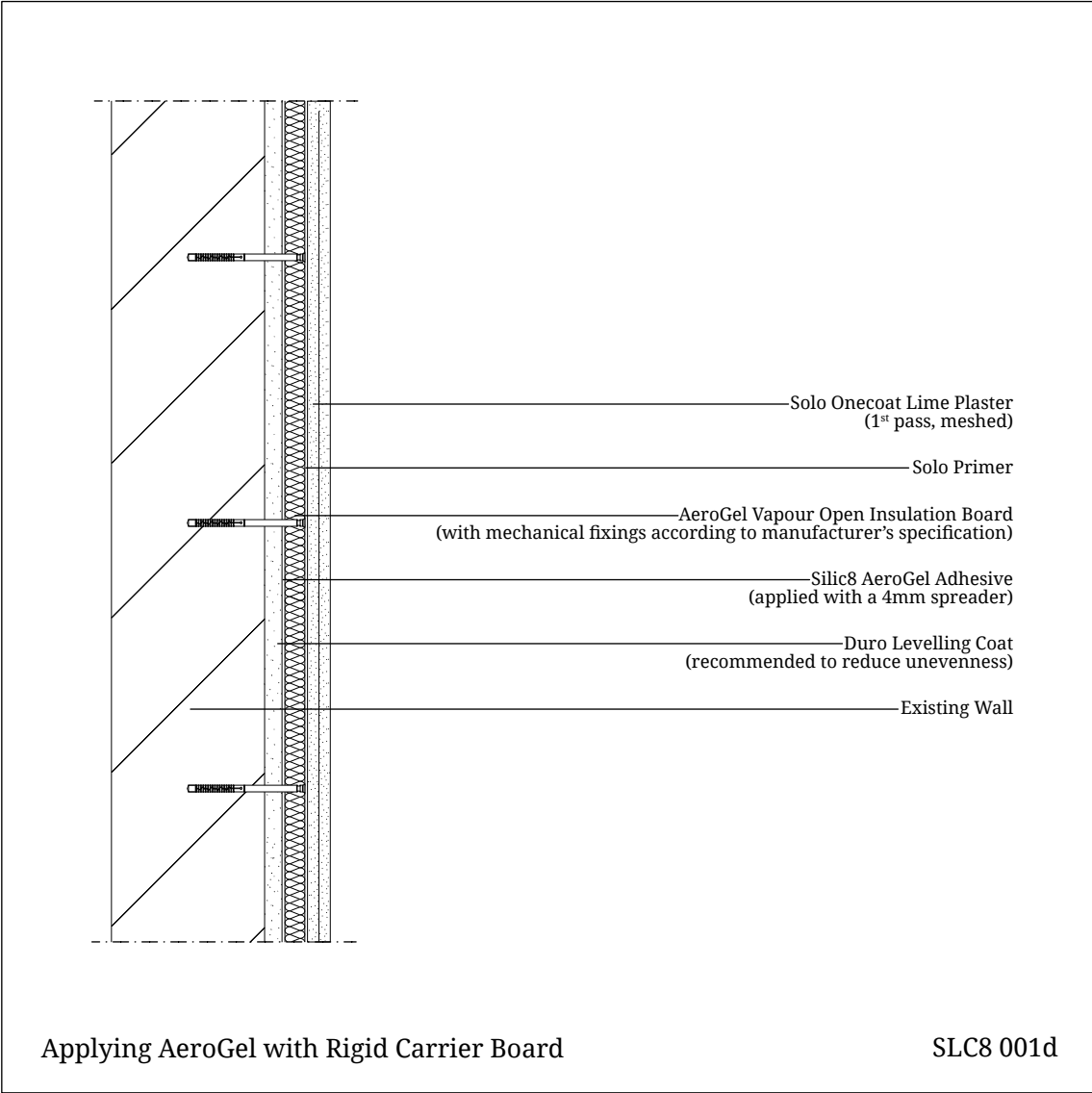
10mm of insulation in the reveals and head is more effective at saving energy than doubling the main insulation on the wall.

It is vital that insulation and air-tightness tape is fitted to the window reveals, heads and sills to prevent the formation of condensation and subsequent mould growth on internal surfaces.

Architectural Details - With Notes



Architectural Details - With Notes





Opening Times: **Mon - Fri 8:30am - 5:00pm**

Tel: **01952 728611**

Email: **enquiries@lime-green.co.uk**

Lime Green Products Ltd

Coates Kiln, Stretton Road

Much Wenlock

Shropshire TF13 6DG

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