

Substrate Characteristics

Concrete is the complex reaction product of aggregates, silica sand and calcium silicates present in cement. Lime is produced during the setting reaction, which slowly further reacts with the silica sand to form more cement. This lime production accounts for the high initial alkalinity of concrete and is influenced by the amount of water added, type of aggregate and additives used. Excess lime may migrate to the surface as laitance, efflorescence or lime staining. Resene Limelock (see [Data Sheet D809](#)) is recommended on all fresh plaster to prevent lime staining. The cement matrix is slowly eroded by acids normally present in rain, so that old weathered concrete may have a weak, unbound layer of sand on the surface.

Surface Preparation

New Work - see [Surface Preparation D83](#) for detailed preparation guidelines.
Repaints - see [Surface Preparation D87](#) for detailed preparation guidelines.

1e 1 Exterior Waterborne

For exterior concrete Resene recommends waterborne paints because of their inherent durability and alkali resistance. The glossier finishes are generally tougher and more easily cleaned but highlight surface imperfections to a greater degree. Textured coatings are best at disguising poor quality substrates. Resene Sureseal (see [Data Sheet D42](#)) is a surface conditioner that also reduces water staining. Resene Limelock is a preparatory coating designed to cure and seal cementitious surfaces by retaining moisture necessary to achieve cure and trapping free lime, minimising downtime between the completion of plastering and commencement of painting. For better hiding, Resene Acrylic Undercoat (see [Data Sheet D404](#)) tinted to the correct colour may replace one of the topcoats. See specification system sheets for [Waterproofing \(17e\)](#), [Flooring \(18e/i\)](#), [Anti-Graffiti \(19e/i\)](#), [Textured Coatings \(20e/i\)](#) and [Paint Effects \(21e/i\)](#).

Exterior Cementitious Surfaces

Cement Render (Exterior Insulation and Finishing System (EIFS), Rough Cast, Stucco), Concrete, Concrete Block, Concrete Masonry, Glass Reinforced Cement, Fibre Reinforced Cement Board and Tilt Slab

Generic Specification				Resene Spec No.	Resene One-Line Specification				
Substrate	Environment	Paint Type	Gloss Level		Surface Prep	1st Coat	2nd Coat	3rd Coat	4th Coat optional
Cementitious Surfaces	Exterior	Waterborne	Gloss	1e 1.1	D83 TP: Limelock D809	SCS: Concrete Primer D405 P: Sureseal D42	Hi-Glo Acrylic Undercoat D404 D31	Hi-Glo D31	Multishield + D54a
Cementitious Surfaces	Exterior	Waterborne	Semi-Gloss	1e 1.2	D83 TP: Limelock D809	SCS: Concrete Primer D405 P: Sureseal D42 SP: Sonyx 101 D30	Sonyx 101 Acrylic Undercoat D404 D30	Sonyx 101 D30	Multishield + D54a
Cementitious Surfaces	Exterior	Waterborne	Satin	1e 1.3	D83 TP: Limelock D809	SCS: Concrete Primer D405 P: Sureseal D42 SP: Lumbersider D34	Lumbersider Acrylic Undercoat D404 D34	Lumbersider D34	Multishield + D54a

1e 2 Exterior Solventborne

Solventborne paints are generally not recommended over cement based surfaces. If they are used, the concrete must be well cured before coating (minimum twelve months). Resene Sureseal is a surface conditioner that also reduces water staining. Resene Limelock is a preparatory coating designed to cure and seal cementitious surfaces by retaining moisture necessary to achieve cure and trapping free lime, minimising downtime between the completion of plastering and commencement of painting. For better hiding, Resene Acrylic Undercoat tinted to the correct colour may replace one of the topcoats. Semi-gloss and flat solventborne paints do not have the necessary weather resistance for exterior exposure.

Generic Specification				Resene Spec No.	Resene One-Line Specification			
Substrate	Environment	Paint Type	Gloss Level		Surface Prep	1st Coat	2nd Coat	3rd Coat
Cementitious Surfaces	Exterior	Solventborne	Gloss	1e 2.1	D83 TP: Limelock D809	SCS: Concrete Primer D405 P: Sureseal D42	Acrylic Undercoat D404	Super Gloss D32

Key: P = Powdery RM = Risk of Mould SCS = Sound Cementitious Surfaces SP = Self Priming TP = Thin Plaster

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Surface Preparation

New Work - see [Surface Preparation D83](#) for detailed preparation guidelines.
Repaints - see [Surface Preparation D87](#) for detailed preparation guidelines.

1i 1 Interior Waterborne

Typically waterborne paints tend to be thermoplastic and may pick up dirt as well as softening after repeated hand contact. Waterborne enamels Resene Enamacryl (see [Data Sheet D309](#)), Resene Lustacryl (see [Data Sheet D310](#)) and Resene SpaceCote Low Sheen (see [Data Sheet D311](#)) have been specifically designed to overcome these traditional weaknesses. Textured coatings are best at disguising poor quality substrates. Resene Sureseal (see [Data Sheet D42](#)) is a surface conditioner that also reduces water staining. For better hiding, Resene Acrylic Undercoat (see [Data Sheet D404](#)) tinted to the correct colour may replace one of the topcoats. Resene recommends waterborne paints over cementitious surfaces because of their inherent alkali resistance. See specification system sheets for [Flooring \(18e/i\)](#), [Anti-Graffiti \(19e/i\)](#), [Textured Coatings \(20e/i\)](#) and [Paint Effects \(21e/i\)](#).

Interior Cementitious Surfaces

Cement Render (Stucco),
Concrete, Concrete Block, Fibre
Reinforced Cement Board and
Tilt Slab

Generic Specification				Resene Spec No.	Resene One-Line Specification					
Substrate	Environment	Paint Type	Gloss Level		Surface Prep	1st Coat	2nd Coat	3rd Coat		
Cementitious Surfaces	Interior	Waterborne	Gloss	1i 1.1	D83 TP: Limelock D809	SCS: Concrete Primer P: Sureseal	D405 D42	Enamacryl Acrylic Undercoat	D309 D404	Enamacryl D309
Cementitious Surfaces	Interior	Waterborne	Semi-Gloss	1i 1.2	D83 TP: Limelock D809	SCS: Concrete Primer P: Sureseal SP: Lustacryl	D405 D42 D310	Lustacryl Acrylic Undercoat Lustacryl	D310 D404 D310	Lustacryl D310
Cementitious Surfaces	Interior	Waterborne	Satin	1i 1.3	D83 TP: Limelock D809	SCS: Concrete Primer P: Sureseal SP: Lumbersider	D405 D42 D34	Lumbersider Acrylic Undercoat Lumbersider	D34 D404 D34	Lumbersider D34
Cementitious Surfaces	Interior	Waterborne	Low Sheen	1i 1.4^{ZS}	D83 TP: Limelock D809	SCS: Concrete Primer P: Sureseal SP: Zylone Sheen	D405 D42 D302	Zylone Sheen Acrylic Undercoat Zylone Sheen	D302 D404 D302	Zylone D302
Cementitious Surfaces	Interior	Waterborne	Low Sheen	1i 1.4^{SC}	D83 TP: Limelock D809	SCS: Concrete Primer P: Sureseal SP: SpaceCote Low Sheen	D405 D42 D311	SpaceCote Low Sheen Acrylic Undercoat SpaceCote Low Sheen	D311 D404 D311	SpaceCote Low Sheen D311
Cementitious Surfaces	Interior	Waterborne	Flat	1i 1.5	D83 TP: Limelock D809	SCS: Concrete Primer P: Sureseal SP: Zylone 20	D405 D42 D37	Zylone 20 Acrylic Undercoat Zylone 20	D37 D404 D37	Zylone 20 D37
Cementitious Surfaces	Interior	Waterborne	Flat	1i 1.5^{SC}	D83 TP: Limelock D809	SCS: Concrete Primer P: Sureseal SP: SpaceCote Flat	D405 D42 D314	SpaceCote Flat Acrylic Undercoat SpaceCote Flat	D314 D404 D314	SpaceCote Flat D314

Key: P = Powdery SCS = Sound Cementitious Surfaces SP = Self Priming TP = Thin Plaster

1i 2 Interior Solventborne

Solventborne paints are generally not recommended over cement based surfaces. If they are used, the concrete must be well cured before coating (minimum twelve months). Resene Sureseal is a surface conditioner that also reduces water staining. For better hiding, Resene Acrylic Undercoat tinted to the correct colour may replace one of the topcoats.

Generic Specification				Resene Spec No.	Resene One-Line Specification			
Substrate	Environment	Paint Type	Gloss Level		Surface Prep	1st Coat	2nd Coat	3rd Coat
Cementitious Surfaces	Interior	Solventborne	Gloss	1i 2.1	D83 TP: Limelock D809	SCS: Concrete Primer D405 P: Sureseal D42	Acrylic Undercoat D404	Super Gloss D32
Cementitious Surfaces	Interior	Solventborne	Semi-Gloss	1i 2.2	D83 TP: Limelock D809	SCS: Concrete Primer D405 P: Sureseal D42	Lusta-Glo D33 Acrylic Undercoat D404	Lusta-Glo D33
Cementitious Surfaces	Interior	Solventborne	Flat	1i 2.5	D83 TP: Limelock D809	SCS: Concrete Primer D405 P: Sureseal D42	Flatcote D306 Acrylic Undercoat D404	Flatcote D306

Key: P = Powdery SCS = Sound Cementitious Surfaces TP = Thin Plaster