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# Traditional Substrates Guide



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# Traditional Substrates Guide

This guide presents an overview of key substrates typically experienced providing a base level understanding of: Physical & Technical Properties, Key Coating System Demands, Critical Specification Requirements and GOOD-BETTER-BEST System Options. It's not intended to cover all substrates, nor detailed aspects of coating specifications, but to give you an overview of the key considerations in providing advice on coating options. An appropriate Project Coating Specification needs to consider and satisfy: functional substrate requirements, to the level expected by the client. To achieve this it's important to understand (and educate) the client on Substrate Demands and communicate the system options available so that the client is better able to make an informed choice on a coating system to meet his/her requirements. For detailed project specification an appropriate Project Specification should include agreement of scope and client performance expectations.

RANGE				CRITICAL SPECIFICATION REQUIREMENTS					DULUX RECOMMENDATIONS			RANGE
	SUBSTRATE	DESCRIPTION	TECHNICAL COMMENTS	Cracks	Efflorescence	Adhesion	Carbonation	Hiding	GOOD	BETTER	BEST	
CEMENT RENDER	Site Mixed	Typically: 4-8 parts local sand 1 part cement 1 part lime. Variable mix and properties relative to plasterer preference, finishing techniques and cure conditions	Cement properties: high compressive strength, low tensile strength (HARD but INFLEXIBLE). Shrinks on initial cure (hydration) and over its life with increasing hardness. Highly alkaline, reducing on ageing. Sand properties: relative to local area. Sand particle distribution, shape (and contaminants) are critical to end properties.	...	...			•	Green Render Sealer 2 x AcraShield®			Site Mixed
	Pre-Bagged Render (including RenderWall®)	Controlled formula cement render acrylic modified (dependant on supplier). Most are (still) basic sand & cement properties but without site mix variabilities	As for site mixed render but with improved <ul style="list-style-type: none"><li>Consistency of mix</li><li>Cure properties in thin film (relative to acrylic content)</li><li>Efflorescence control (relative to supplier formula)</li></ul>	...	•• Properly formulated			•	Green Render Sealer Acratex Acrylic Texture AcraShield or AcraSkin			Pre-Bagged Render (including RenderWall)
BRICK & BLOCK	Blockwork (for rendering)	Flush jointed cement block specified to have a cement render levelling coat	Good suction and mechanical key - ideal for cement render levelling	...	...			•• Levelling	RenderWall + AcraPrime® WB 2 coats AcraShield			Blockwork (for rendering)
	Brickwork (for rendering)	Clay or cement brickwork New (for coating): typically laid with flush jointing to have a 4-6mm cement render levelling coat Existing “face brick”: for renovation with rolled or deeper raked joints requires higher build cement render levelling	Suction variable dependant on brick type & mortar depth resulting in differential drying of the render can show “mapping” of the brick pattern, even when rendered flush	...	•• Rendered			••	RenderWall + Green Render Sealer 2 coats AcraSkin			Brickwork (for rendering)
	Brickwork Flush/jointed for bagging	Clay or cement brickwork with shallow rolled or flush joints for a “bag texture” finish	Face surface of brickwork MUST be cleaned free of all mortar smears - mortar (designed for 10 mm brick course) is NOT suitable as a fine surface flushing compound	•	...	...		••• Levelling	2xContemporary Mediterranean Classique	PLUS AcraShield		Brickwork Flush/jointed for bagging
CONCRETE	Precast	Factory made, steel reinforced, concrete panels formed or “cast” in project specific sized panels. Surface condition dependant on finishing and cure process - potentially a difficult hard & shiny surface	Bond breakers/form oils/release agents: Must be totally removed <ul style="list-style-type: none"><li>Oil based release agents (most typical type) are removable by HPW + high power detergent</li><li>Film forming agents (inc. curing compounds) are removable by wet abrasive blasting</li><li>Steel Reinforced Concrete: best coating system will provide anti-carbonation protection</li></ul>		•	•••	•••	Relative to surface blow holes	AcraPrime WB 2xAcraShield	Anti-Carbonation spec. Road side barriers		Precast
	Off-Form & Tilt-Up	Steel reinforced concrete, poured on site, shaped with vertical “forms” which are removed as soon as concrete reaches required self supporting strength	<ul style="list-style-type: none"><li>As for Tilt-Precast: forms use release oils &amp; concrete re-bar requires anti-carbonation system</li><li>Form-Shutter misalignment: patching required to level and “make good” &amp; high build texture relief systems are specified for best aesthetics</li></ul>		•	•	•••	•••		AcraPrime SB 2xAcraShield	Anti-carbonation spec. Premium freeway/bridges	
PREVIOUSLY COATED	Good Condition (not powdery)	Maintenance Repaint: Acrylic Texture or Acrylic Paint No paint failure No powdery Surface	Extended Warranty options in negotiating original full Acratex® specifications: <ul style="list-style-type: none"><li>7+7, 10+10 or lifetime proposition</li></ul>	Relative to substrate & project requirements					In all repaint systems specification including preparation & priming is relative to condition			Good Condition (not powdery)
	Poor Condition (defects, powdery)	Restoration Repaint: System defects reported	Facade Restoration: Requires technical project inspection & review. Step 1: Project detail and defect photos to Acratex State Manager and/or Acratex Technical	Relative to substrate & project requirements					Enhanced film properties & higher film build			Poor Condition (defects, powdery)

► The optimum system for coastal environment is 2 coats of AcraShield or AcraSkin.



## WHAT DO YOU NEED?

Dulux® Acratex® material recommendations are a guide to assist you in exploring the possibilities.

For a comprehensive understanding and to explore all available combinations, visit our dedicated platform, DuSpec+®.

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