

MasterSeal 600

Liquid bonding agent for cement mixes

DESCRIPTION

MasterSeal 600 is a special formulation of acrylic polymers and modifiers designed for use as an additive for **MasterSeal 581** (formerly known as Thoroseal) cement mixes and other highly alkaline building materials. **MasterSeal 600** is a milky-white liquid with a viscosity slightly higher than that of water.

RECOMMENDED USES

MasterSeal 600 is recommended for :

- bonding slurry coats
- dry screeds
- render key coats
- modifying renders
- patching and repair mortars

FEATURES AND BENEFITS

- **Stable even under wet conditions** – Unaffected by ultraviolet light, contact with water and provides good durability under all conditions.
- **Plasticising action** – Improves the workability of cement mixes, aiding ease of application.
- **Increased cohesion of mixes** – Improves all physical characteristics of cement mixes, therefore increasing resistance to wear and weather.

PROPERTIES

Strength comparison for 3:1 sand/cement mortar

	Water only (N/mm ²)	Water : MasterSeal 600 1:1 by vol (N/mm ²)
Compressive (ASTM 109)	7 days	26.1
	28 Days	27.9
Flexural (ASTM C348)	28 Days	7.23
		12
Tensile (ASTM C3C109)	7 days	1.45
	28 Days	1.52
Shear bond days	7	0.44
		0.53
		0.55
		1.30

28 Days	
Density	1.035 kg/L
Solids content	28% w/w
Maximum dilution	1:3 by volume
Colour	Milky white solution

APPLICATION

Do not apply mixes modified with **MasterSeal 600** to frozen substrates or if the ambient temperature is below 5°C or expected to fall below 5°C within 24 hours. Avoid application in direct sunlight.

Do not use **MasterSeal 600** where the application is likely to be in prolonged contact with hydrocarbons such as fuel oils, diesel oil and petrol.

In a bonding slurry coat

Blend ordinary Portland cement into neat **MasterSeal 600** and mix with a trowel or wing paddle mixer attachment in a slow speed drill (400-600 rpm) until a smooth lump-free slurry is produced.

Apply the mix only to a clean, prepared, sound surface, which has been pre-dampened but has no free -standing water. Apply to the concrete whilst the slurry is still wet. Work the slurry well into the surface with a stiff brush or broom. Do not allow the slurry to dry out.

Dry screeds

Mix premixed sand and cement (3:1) with **MasterSeal 600** diluted with water (1:2) together to the required consistency. Apply and cure screed according to local specifications and site practice. **MasterSeal 600** will aid the curing of the screed, prevent drying shrinkage and stop dusting.

In a render key coat

Premix dry coarse sharp sand with Portland cement (2:1) and mix with **MasterSeal 600** diluted with water (1:1) until a slurry consistency is obtained. Ensure that the surface has been prepared to a clean, sound condition free from any surface coating, algae, foreign matter or any other products that could affect the bond adversely. The slurry should be brushed vigorously into the pre-dampened surface after removing any free- standing water. All pores and voids must be filled with the mix and stippled or heavily textured. The best results are obtained with a stiff broom. Leave to harden overnight before rendering.

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For modifying renders

Premix cement with render sand (0-4 mm) (1:2) and mix with MasterSeal 600 diluted with water (1:3) until the desired render consistency is obtained. For larger areas, use a forced-action mixer of the rotating drum, pan or trough type, adding the dry-mixed mortar to the mixing liquid until a cohesive mass suitable for trowel application is obtained.

Always apply the mix to a prepared surface, preferentially with a render key coat, which has been dampened but has no freestanding water. Apply the mix using standard plastering techniques; avoid exceeding the maximum designed depth of application. For a smooth finish, the best results are obtained with a stainless steel trowel.

For patching and repair mortars

Premix Portland cement with clean sharp sand (0-6 mm)(1:3) and then mix with MasterSeal 600 and water mixed (1:1) until the desired consistency has been obtained. For large areas, use a forced action mixer of the rotating drum, pan or trough type adding the dry-mixed mortar to the mixing liquid until a dry consistency is obtained. Small quantities can be thoroughly mixed by hand.

Apply the bonding slurry as described earlier in this publication to the prepared patch or repair areas. If there is steel reinforcing in the repair, this must also be coated with the slurry. Never allow the slurry to dry out.

This mixed material must be firmly pushed into place and compacted with a trowel or float in layers not exceeding 20 mm. Successive layers can be placed once the initial set has taken place.

This mix is not suitable for feather edging since the minimum recommended depth required is 10 mm.

CURING

The best results are obtained from mortars modified with **MasterSeal 600** if they are damp-cured for 24 hours and allowed to dry out gradually. Do not use curing compounds.

ESTIMATING DATA

	MASTERSEAL 600:Potable water (by volume)
Bonding slurry coats	1:0
Dry screeds	1:2
Key coats	1:1
Renders	1:3
Repair mortars	1:1

PACKAGING

MasterSeal 600 is available in 20L plastic carboys and 205L drums.

SHELF LIFE

MasterSeal 600 can be kept for 12 months if stored in original unopened packaging.

MasterSeal 600 should be stored under cover and clear of the ground and stacked not more than 4 carboys high. Protect from freezing and discard if it has frozen.

PRECAUTIONS

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the Master Builders Solutions Material Safety Data Sheet (MSDS) from our office or our website.

STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this Master Builders Solutions publication is based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by commonwealth or State legislation. The owner, his representative or the contractor is responsible for checking the suitability of products for their intended use.

NOTE

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