

THORO[®] ACRYL 60

Liquid bonding agent for cement mixes.

Description

THORO[®] ACRYL 60 is a special formulation of acrylic polymers and modifiers designed for use as an additive for cement mixes and other highly-alkaline building materials.

THORO[®] ACRYL 60 is a milky-white liquid with a viscosity slightly higher than that of water.

It is non-hazardous, non-corrosive and non-combustible.

Uses

In a bonding slurry coat

- To adhere new concrete to old.
- To bond thin polymer screeds or toppings to substrate.
- To bond screeds to dense substrates such as THORO[®]SEAL.

For dry screeds

- To provide an economic-wearing floor surface where a higher resistance to wear, abrasion, impact, dusting is required.
- To improve resistance to mild chemicals.

In a render key coat

- To provide a mechanical key prior to rendering on dense or smooth materials such as concrete, concrete block, concrete brick, engineering bricks and dense clay blocks.
- To provide a keyed surface of uniform suction on surfaces with varying absorption rates.

For modifying renders

- To allow effective use of thinner renders.
- To reduce shrinkage and dusting.
- To increase durability, flexibility, and weatherproofing.

For patching and repair mortars

- For internal and external repairs to floors, roads, paths etc.
- For repair to spalled and damaged concrete.

As an admixture for THORO[®] products

- THORO[®] ACRYL 60 is a necessary component recommended for use with several THORO[®] product

Benefits

- Unaffected by ultraviolet light or contact with water, providing good durability under all conditions.
- Improves the workability of cement mixes, aiding ease of application
- Improves all physical characteristics of cement mixes, therefore increasing resistance to wear and weather.

*Typical properties

Typical values; all tests under temperature controlled conditions at 21°C

Density	1.035 kg
Solids content	28% w/w
Maximum dilution	1.3 by volume

Strength comparison for 3:1 sand/cement mortar	Water only	Water: THORO [®] Acryl 60 1:1 by volume
	N/mm ²	N/mm ²
Compressive	7 days	26.1
	28 days	27.9
Flexural	7 days	7.23
	28 days	12.13
Tensile	7 days	1.45
	28 days	2.35
Shear	7 days	0.44
	28 days	0.52
		1.16

THORO[®] ACRYL 60

Colours

Milky white solution.

Coverage

	THORO [®] ACRYL 60 / Potable water (by volume)
Bonding slurry coats	1/0
Key coats	1/1
Renders	1/3
Repair mortars	1/1
Dry screeds	1/2

As an admixture for THORO[®] products

	THORO [®] ACRYL 60 / Potable water (By volume)
THORO [®] STRUCTURITE	1/1
THORO [®] PATCH	1/1
THORO [®] TECT CR	1/0

THORO[®] ACRYL 60 is recommended for use with

	THORO [®] ACRYL 60 / Potable water (By volume)
THORO [®] HISTORIC DRYJOINT	1/3
THORO [®] DRYJOINT	1/3
THORO [®] QUICKSEAL	1/2
THORO [®] ROADPATCH	1/3
THORO [®] THORITE	1/3
THORO [®] SEAL	1/3
THORO [®] SEAL FC	1/3
THORO [®] SEAL PM	1/3
THORO [®] SEAL SPM	1/3

Packaging

2 litre plastic bottles, 5 and 20 litre plastic cans, 220 litre drums.

Storage

THORO[®] ACRYL 60 should be stored under cover and clear of the ground and stacked not more than 2 for 20 litres, or 3 for 5 litres cans high. Protect from freezing.

Rotate stock in order not to exceed the shelf life of 12 months.

Application

Do not apply mixes modified with THORO[®] ACRYL 60 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 THORO[®] ACRYL 60 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 THORO[®] ACRYL 60 and mix with a trowel or THORO[®] EZ mixer attachment in a slow speed drill (400-600 rpm) until a smooth lump-free slurry is produced. Do not overmix. Apply the mix only to a clean, prepared, sound surface which has been pre-dampened but has no free-standing water. Work the slurry well into the surface with a THORO[®] brush or broom.

Do not allow the slurry to dry out. Apply the mortar/concrete whilst the slurry is still wet.

Dry screeds

Mix 1 part of cement with 3 parts of screeding sand. Prepare mixing liquid comprising 1 part of THORO[®] ACRYL 60 to 2 parts of water.



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THORO[®] ACRYL 60

Mix the materials together to the required consistency. Do not overmix. Apply and cure screed according to local specifications and site practice. THORO[®] ACRYL 60 will aid the curing of the screed, prevent drying shrinkage and stop dusting.

In a render key coat

Dry mix 2 parts of coarse sharp sand to 1 part of ordinary Portland cement. Add the mixing liquid of equal parts

THORO[®] ACRYL 60 and water until a slurry consistency is obtained. Do not overmix.

Ensure that the surface has been prepared to a clean, sound condition free from any surface coating, algae, foreign matters or any other product which could affect the bond adversely. The slurry is brushed vigorously into the pre-dampened surface after removing any freestanding water. All pores and voids are filled with the mix and stippled or heavily textured. The best results are obtained with a THORO[®] broom. Leave to harden overnight (at 20°C) before rendering.

For modifying renders

Dry mix 1 part of cement with 2 parts of render sand (0-4 mm). Prepare mixing liquid of 1 part of THORO[®] ACRYL 60 to 3 parts of water.

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. Do not overmix. Small quantities can be thoroughly mixed by hand. Do not overmix.

Always apply the mix to a prepared surface, preferentially a render key coat, which has been dampened but has no free-standing 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.

Do not over trowel.

For patching and repair mortars

Dry mix 3 parts of clean sharp sand (0-6 mm) with 1 part of ordinary Portland cement. Prepare the mixing liquid by blending equal parts of THORO[®] ACRYL 60 and water together.

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.

Do not overmix.

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.



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As an additive to THORO[®] products
For details consult relevant Product Data Sheet

Curing

The best results are obtained from mortars modified with THORO[®] ACRYL 60 if they are damp-cured for 24 hours and allowed to dry out gradually.

Do not use curing compounds.

Health and safety

THORO[®] ACRYL 60 liquid should not be ingested as it is based on acrylic polymers. Gloves and eye protection should be worn. Accidental splashes of these materials to the skin or eyes should be immediately washed off with clean water. In the event of prolonged irritation seek medical advice.

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* Properties listed are based on laboratory controlled tests.

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