

4 in 1 Universal Admixture

Description

4 in 1 has been formulated to enhance the physical and chemical properties of cement mortars and concretes. It is compatible with most forms of cement, sands and aggregates. Together with the cement, it forms a powerful adhesive to bond the aggregates together, producing a tougher, waterproof and more impact and abrasion resistant floor, repair mix, render or bonding primer.

Uses

4 in 1 modified mortars are used for screeds, floor repairs, waterproof renders, waterproof fine concretes and bonding.

Properties

The properties of the cured mix will vary depending on the type of cement, sand and aggregates used.

Compression

Age	N/mm ²
1 day	14-18
28 days	40-50

(strength dependent on mix design)

Preparation

Surfaces to which 4 in 1 mixes are to be applied must be clean, strong, free from oil, grease, and with a rough profile. Best preparation is with a scabber or power washer. If metal surfaces are to be covered they must be rust free and wire brushed or grit blasted. Cement based substrates must be damped with clean water and excess water removed. A primer coat of 1:1 4 in 1/cement is brush applied to the prepared surface. Refer to relevant standards and codes of practice.

Mixing and application

Hand mix or use a forced action mixer. The components of the selected mix are measured by weight or volume and dry mixed. The 4 in 1 and water is added to give the desired consistency. In an efficient mechanical mixer, mixing should continue for 2-3 minutes. When hand mixing mix the cement, aggregate and sand dry then add sufficient of the 4 in 1 / water until a homogeneous consistency is achieved.

The mixed mortar is applied to the prepared and primed surface whilst the primer is still wet/tacky, using conventional screeding, rendering and concreting techniques. Apply as required on to wet or tacky primer, compact well and finish. If the primer dries, cross hatch scratch and reapply. If necessary apply mortar in multiple layers to achieve total thickness, priming between layers with 4 in 1 : cement primer. Cure surface when finished to prevent rapid drying, with a Curing Membrane, tight fitting polythene, or similar.

Storage

4 in 1 must be stored unopened in dry warehouse conditions between +5°C and 25°C and out of direct heat and sunlight. In these conditions 4 in 1 should have a shelf life of approximately 12 months.

Packaging

4 in 1 is available in 5, 25 and 230 litre containers.

Health and Safety

There are no emissions of noxious or offensive fumes. 4 in 1 is alkaline when mixed with cement and sand; do not allow prolonged contact with skin. COSHH information available.

Site Attendance

When on site Adawall representatives are able, if asked, to give a general indication of the correct method of installing an Adawall product. It is important to bear in mind that Adawall is a manufacturer and not an application contractor and it is therefore the responsibility of the contractor and his employer to ensure he is aware of and implements the correct practices and procedures to ensure the correct installation of the product and that liability for its correct installation lies with the contractor and not with Adawall Ltd.

Mix Design 1

Floor Screeding and Screed Repair (min. 6mm)

by weight	by volume
50kg cement	1 pbv
150kg medium sand	2.5 pbv
10 litres 4 in 1	{1:1 4 in 1:water
9 litres water*	{add to consistency
Yield approx 0.1m ³	

Mix Design 2

Heavy Duty Floor Toppings (min. 12mm)

by weight	by volume
50kg cement	1 pbv
75kg medium sand	1.25 pbv
75kg 6-3mm grano chips	1.25 pbv
10 litres 4 in 1	{1:1 4 in 1:water
9 litres water*	{add to consistency
Yield approx 0.11m ³	

Mix Design 3

Waterproof Renders (min. 6mm)

by weight	by volume
50kg cement	1 pbv
125kg medium sand	2 pbv
10 litres 4 in 1	{1:1 4 in 1:water
9 litres water*	{add to consistency
Yield approx 0.1m ³	

Mix Design 4

Water Resistant Concrete (min. 25mm)

by weight	by volume
50kg cement	1 pbv cement
100kg medium sand	1.5 pbv
100kg 10-5mm pea shingle	1.5 pbv
5 litres 4 in 1	{1:3 4 in 1:water
13 litres water*	{add to consistency
Yield approx 0.14m ³	

Mix Design 5

Bonding Screeds, Plaster, New Concrete to Old

by weight	by volume
1kg cement	1 pbv cement
1litre 4 in 1	1 pbv 4 in 1
Yield approx. 3-4m ² per litre	

Mix Design 6

Floating screed (min. 38mm)

by weight	by volume
50kg cement	1 pbv
150kg medium sand	2.5 pbv
5 litres 4 in 1	{1:3 4 in 1:water
13 litres water*	{add to consistency
Yield approx 0.1m ³	

Mix Design 7

Floor Screeding and Screed Repair (min. 26mm)

by weight	by volume
50kg cement	1 pbv
150kg medium sand	2.5 pbv
5 litres 4 in 1	{1:3 4 in 1:water
13 litres water*	{add to consistency
Yield approx 0.1m ³	

* =add to working consistency

All sands must be medium grade sharp. Aggregates must be clean, well graded and not "to dust".