



# HATCRETE

## Colourmix

A coloured admixture for producing integral colour in concrete.

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### TECHNICAL DATA

# TD 12

#### COLOUR TECHNOLOGY FOR CONCRETE

#### DESCRIPTION

HATCRETE® Colourmix is a water-reducing, workability enhancing admixture which strengthens and integrally colours new concrete. It can be used in pre-cast or cast in-situ applications and can be colour matched to blend in or complement the surrounding natural landscape. HATCRETE® Colourmix widely extends the otherwise very limiting aspects of ordinary grey concrete and is used wherever an integral colour is needed. Freshly placed concrete may be trowelled to a smooth finish or given a variety of textures. Removing the top surface can reveal a decorative exposed aggregate finish. HATCRETE® Colourmix is stable in the presence of lime and sunlight and contains no chlorides.

#### MAIN FEATURES

- Ready to use accurate dosage.
- Available in 24 standard colours.
- Custom colours made to order.
- Packaged in water-soluble bags within paper sacks.
- Colour consistency guaranteed.
- Quality assured under BS EN ISO 9002.
- Reduces mix water demand.
- Increases concrete strength.
- Pigments used conform to BS EN 128 78: 1999.
- Absolute minimal wash down requirements.

#### RATE OF ADDITION

HATCRETE® Colourmix is pre-weighed and packaged within water-soluble bags. Each bag is sufficient to colour 1 cubic metre of concrete, or smaller batch sizes as specified.

#### AVAILABILITY

HATCRETE® Colourmix is manufactured to order, usually within 5 working days against each customer's individual specification. Custom made colour options can normally be manufactured within 5 working days of approved colour match.

#### COLOUR CHART

Reference to the HATCRETE® Colourmix colour chart shows the 24 standard colours depicting a smooth trowelled surface. An "average" grey Portland Cement has been used in a typical midrange cement content mix, giving muted earthy tones. Different textures and finishes result in variations of shades. Brighter versions can be obtained with Portland Blast Furnace Cements, the brightness increasing with the slag content. For absolute purity of colour, White Portland Cement can be used.

In all cases it is advisable to carry out trial mixes and prepare sample panels using the mixes, materials and methods envisaged for the final project, before work commences.

#### COVERAGE

HATCRETE® Colourmix is precisely factory pre-weighed to colour condition the particular mix design specification. Standard and custom colours are packaged in bags sufficient to colour 1 cubic metre of concrete.

#### PACKAGING

HATCRETE® Colourmix is supplied double packed in water soluble bags within a water-resistant sack. This provides a highly accurate addition rate as the whole INNER bag is discharged into the mixer with the concrete. It is important that bags are opened correctly at the top as directed on the packaging to ensure no damage to the inner soluble bag.

#### STORAGE

Bags should be stored off the floor, unopened in a dry environment. Shelf life is normally 12 months if stored as recommended.

#### CONCRETE

The mix must primarily be designed to fully satisfy the specific performance requirements in service. As HATCRETE® Colourmix gives an 8-10% reduction in overall water demand, THIS SHOULD BE ALLOWED FOR DURING BATCHING.

All aggregates must be non-reactive and mix water kept to the minimum required for the satisfactory placement and finishing of the concrete.

#### METHOD OF USE

The mixing drum must be clean and free from any previous mix 'build-up' or any other material. HATCRETE® Colourmix is usually added at the rate of 1 bag per cubic metre and must be used as indicated on the packaging. It is essential that the cementitious components are accurately weighed and are the same as quoted on the HATCRETE® Colourmix bag. To maintain batch to batch colour uniformity the specified mix design must be adhered to and sources of all materials must remain constant throughout the project.

Any changes, particularly of the cement (and cement extender if used), water content and to a lesser extent the fine aggregate, will affect the end result. As with accepted good concrete practice, the properties of the constituent materials, including aggregate gradings, should remain consistent.

For absolute colour uniformity from batch to batch, identical amounts of all the ingredients must be maintained and the slump kept under tight control.



CERTIFICATE NO. FM 27153

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Under normal circumstances, HATCRETE® Colourmix will give an 8-10% reduction in overall water demand. THIS SHOULD BE ALLOWED FOR DURING BATCHING. Additional water should never be added beyond that allowed for in the original mix design as this will not only affect the final colour but will also reduce the strength and durability of the concrete.

The minimum mixing time necessary to achieve full colour saturation is best determined by carrying out preliminary trials using the plant, equipment and proposed mix design.

#### POINT OF ADDITION

The UNOPENED water-soluble INNER bag(s) of HATCRETE® Colourmix should normally be added at the same time as, and along with, the other dry ingredients. This will depend on the particular plant in question coupled with the mixing cycle/regime in operation. Best results are achieved by introducing the whole inner bag(s) of HATCRETE® Colourmix after the mixer has been primed, ie when about 10-20% of the batch has been charged; this gives almost maximum exposure time to the other materials during initial mixing. NEVER INTRODUCE HATCRETE® COLOURMIX INTO A TOTALLY EMPTY MIXER. For ready-mixed concrete, whether dry-batched or wet-batched, HATCRETE® Colourmix should be "sandwich loaded" wherever possible. When HATCRETE® Colourmix is introduced to a fully charged truck on site, adequate mixing time must be allowed (usually between 10-15 minutes at mixing speed).

#### HANDLING, PLACING AND COMPACTION

Concrete treated with HATCRETE® Colourmix should be utilised in the same way as high quality architectural concrete. The principles of good concrete practice must be maintained at every stage. The placing of coloured concrete in temperatures below 5°C should be avoided at all costs.

#### CURING AND FINISHING

To reduce the risk of early age plastic shrinkage cracking due to rapid drying, the concrete should be cured using HATCRETE® Cureseal in a matching colour. This will also minimise the likelihood of efflorescence. Please refer to Technical Data Sheet TD14 for further details. In climates where a water based system is more appropriate or if the specification demands, HATCRETE® Hycure should be considered. Please refer to Technical Data Sheet TD16 for further details. Accepted methods of curing ordinary uncoloured concrete including damp hessian, sand, plastic sheeting or ponding MUST NOT BE USED as these may affect the final colour uniformity of the concrete. For more information on specific applications it is advisable to consult PICS Ltd.

#### SHORT FORM SPECIFICATION

'All concrete designated as integrally coloured in the specification shall be coloured using HATCRETE® Colourmix manufactured by PICS Ltd Unit 2, Red Shute Hill Ind. Est. Hermitage, Nr Newbury, Berkshire RG18 9QL Tel: +44 (0) 1635 202224 Fax: +44 (0) 1635 202230 in ..... (colour). The concrete shall have a minimum cement content of ..... kg per cubic metre and all aggregates must be non-reactive. The colouring admixture shall be a single component, coloured, water-reducing admixture. It must be formulated and packaged in cubic metre increments, not multiple pigments and additives

incorporated separately into the mix. All the pigments must conform to BS EN 128 78: 1999. HATCRETE® Colourmix shall be added in accordance with the manufacturer's current Technical Data Sheet TD12. The manufacturer shall be a BSI registered company with accreditation to BS EN ISO 9002'.

#### CURING & SEALING SPECIFICATION

For curing and sealing single colour surfaces, please refer to the specification in Technical Data Sheet TD14 HATCRETE® Cureseal for solvent based systems, or Technical Data Sheet TD16 HATCRETE® Hycure for water based systems. For concrete surfaces requiring a clear protective coating, please refer to the specification in TD13 HATCRETE® Clear Sealer for solvent based systems, or TD17 HATCRETE® Hyseal for water based systems.

#### HEALTH & SAFETY

Care must be taken when handling, storing and using HATCRETE® Colourmix.

Before using HATCRETE® Colourmix always read Safety Data Sheet SD12 available from PICS Ltd.

Keep away from children and animals.

**PICS Ltd's quality system is approved by the BSI and conforms to BS EN ISO 9002. This applies to the manufacture and supply of all PICS Ltd products.**