SLP Colourtone
Integral Colour

For Ready Mixed Concrete and Mortar Technical Data Sheet

Description

SLP Colourtone Integral Colour is a complete colour conditioning and water reducing admixture package that is supplied pre-weighed in water soluble bags which are protected until use by an outer, water resistant, polypropylene sack. Each bag is sufficient to colour 1 cubic metre of ready mixed concrete or mortar. Colourtone Integral Colour can be used to colour all types of concrete and mortar with end uses ranging from flatwork to in-situ and pre-cast. It is available in a wide range of colours and can be colour matched to blend in or enhance any setting or design.

Main Features

SLP Colourtone Integral Colour is supplied pre-weighed in water soluble bags packed inside a water resistant outer polypropylene sack. The water soluble bag is discharged into the centre of the mix ensuring the highest degree of accuracy; no colour is lost to the atmosphere or local environment. All of the materials used to manufacture Colourtone Integral Colour are made to the highest quality standards and are all sourced within the EU. All the pigments conform to BS EN 128 78:1999, are non fading and are resistant to sunlight and UV. They are highly durable and exhibit very good weathering properties. SLP Colourtone Integral Colour is stable in the presence of lime and does not contain any chlorides.

The incorporated dispersing and processing agents ensure that the colour disperses readily into the mix and the overall workability of the concrete or mortar is enhanced. There is no balling up or caking of pigment around the mixer fins normally associated with the addition of pigment to ready mixed concrete and mortar. In most mix designs, no extra water is required to allow for the addition of Colourtone Integral Colour. In normal circumstances, a nominal overall reduction in water demand is evident, with an associated increase in the final strength. Because the colour is totally dispersed throughout the mix, the requirements for washing out mixers after discharge are minimal.

Mix Design

The concrete or mortar mix must be designed to satisfy the final use. All of the aggregates used to produce the concrete or mortar must be non-reactive and the mix water carefully controlled. No water extra to that which is specified by the mix design should be added to the mix. Extra added water may have an effect on the colour of the batch and possibly cause a reduction in the final strength of the finished concrete. Under normal circumstances, SLP Colourtone Integral Colour will cause an overall reduction in the water demand of the mix of about 5 – 8%. This should be allowed for during batching.

Method of Use

Before commencing to mix the coloured concrete or mortar, it is important to ensure that the mixer drum is clean and free from any build up from previous mixes.

It is essential that each bag of the Colourtone Integral Colour that is to be added is correctly dosed for the cementitious content of the mix. This can be checked by comparing the figure quoted on the Colourtone Integral Colour outer bag with the specified cementitious content of the mix. Part bags of colour should never be used. The actual method employed to introduce Colourtone Integral Colour into the concrete or mortar mix will be dependent on the particular plant in question and/or the mixing technique in operation on the plant. In normal situations to obtain the best results, charge the mixer with about 10 – 50% of the batch then add the entire colour required for the full batch at a rate of 1 water soluble bag per cubic metre. Finally add the remainder of the batch of concrete or mortar. Mixing time will vary depending on the efficiency of the mixer, normally about 10 -15 minutes at mixing speed is sufficient. The most efficient way of introducing Colourtone Integral Colour to the mix is to adopt the above technique. It is also accepted practice to add Colourtone Integral Colour to a fully laden truck mixer on site.

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In this case, care must be taken to ensure that the colour has been mixed sufficiently for it to be totally dispersed throughout the mix. Mixing times will be extended to approximately 15 – 20 minutes at mixing speed, depending on the individual mixer. It is bad practice and not recommended to introduce the colour to a totally empty mixer, thorough colour mixing and hence final colour shade may be seriously affected.

To maintain batch to batch uniformity, it is important that the mix design is strictly adhered to and all of the ingredients and their sources remain constant throughout the project. Any changes, especially to the cement and extenders, fine aggregates or water levels may effect the final colour.

Placing and Finishing Integrally Coloured Concrete

It should be remembered that concrete that has been coloured using SLP Colourtone Integral Colour will be viewed as a decorative creation rather than a functional installation and should be treated accordingly.

In keeping with all concrete installations, accepted good concreting practices must be followed at all times.

SLP Colourtone Integrally Coloured concrete may be finished with a number of surface textures or smooth trowelled. Power trowels may also be used to produce a very durable surface for industrial floors. If power trowels are to be used, care must be taken not to over trowel and produce a 'marbled' finish which may impair the surface colour and produce a slippery floor. Exposed aggregate finishes may also be produced by using surface retarders. In order to prevent the likelihood of plastic shrinkage, cracking and dusting due to rapid surface drying, the concrete should be cured using a non staining, liquid, film forming curing membrane. The use of conventional techniques such as water flooding, covering with polythene sheet, wet Hessian or wet sand must not be used because they may affect the uniformity of the colour. In addition, water-marks or other stains may be produced in the surface which will be impossible to remove without risk of damage.

Availability

SLP Colourtone Integral Colour is supplied in water soluble bags inside a water resistant outer sack. Each water soluble bag is correctly weighed to colour 1 cubic metre of ready mixed concrete or mortar at a given cement content. Packages to suit other volumes of ready mix may also be available.

Due to the wide variety of cement contents used to produce ready mixed concrete and mortars and the large spectrum of colours used, it is not possible to hold stocks of Colourtone Integral Colour without prior arrangement. Colourtone Integral Colour is normally manufactured to order and is usually available for despatch within 5 working days from receipt of order. Please contact our office for specific information.

Health and Safety

In keeping with all chemical based products, care must be used when handling, storing and using SLP Colourtone Integral Colour. Please read the Material Safety Data Sheet before using the product. Please keep SLP Colourtone Integral Colour away from children and animals.

Information and advice, whether verbal or in writing, are compiled with all reasonable care and given in good faith but without warranty. SLP Colourtone cannot accept any liability, either directly or indirectly, arising from the use of its products as it has no control over where or how the products are used. It is the customer's responsibility to determine that the product is suitable for the intended application.

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