



SIDHYA ASIA
CHEMICAL PRIVATE LIMITED



PRODUCT DATA SHEET

Sidhya® Quick Crete 140 AF

Alkali Free Liquid Accelerator for Shotcrete application.

Description

Sidhya® Quick Crete 140 AF is an accelerator designed for shotcrete applications in NATM tunneling method. The product can be used both in wet and dry spray of shotcrete which is applied for securing rock in tunnel construction. The product Sidhya® Quick Crete 140 AF can be used for shotcrete applications in securing rock and slope stabilization. Sidhya® Quick Crete 140 AF improves the hardened concrete properties of shotcrete and increases the adhesion and strength of spray concrete.

Applications

Sidhya® Quick Crete 140 AF is an Alkali Free Shotcrete Accelerator which enhances the adhesion of spray concrete. The product improves the hardened concrete properties for good long term strength and durability and also can be used for the following applications:

- Production of high quality shotcrete for ground engineering and tunneling applications.
- The product can be used on mountains to prevent landslides.
- The product can be used for slope stabilization in mountains roads.
- Shaft stabilization in ground engineering.
- In NATM tunneling, the product is used for soil stabilization for rock.
- In general construction works, it can be used for production of durable shotcrete.

Mixing

Sidhya® Quick Crete 140 AF should be added by using a suitable nozzle which has to be configured as per requirement. The correct quantity of Sidhya® Quick Crete 140 AF should be measured by means of a recommended dispenser. The performance of the product Sidhya® Quick Crete 140 AF depends upon the wet spray process, the w/c ratio of the basic concrete mix, and in the dry process, the amount of water added during spraying. Metal components that come into direct contact with the product should be fabricated of stainless steel. Do not use brass part.



Technical Specifications

Chemical Base	Mixture of Special organic substances
Color	Pale yellow to beige color.
Appearance	Homogenous
State	Liquid
Specific Gravity	1.40 ± 0.05 @ 20°C
pH	2.50 ± 1.00 @ 20°C
Chloride Ion Content	No added Chlorides.
Shell Life	6 months from the date of manufacturing if stored as per recommendations and original sealed packing.

Advantages

Sidhya® Quick Crete 140 AF is an alkali free accelerator which supports in fast setting of spray concrete and enhances the hardened properties of shotcrete and hence providing the following advantages:

- Production of high-quality shotcrete for ground engineering and tunneling applications.
- Improves the adhesion of sprayed concrete to the substrate such as rocks.
- The product promotes long-term strength and durability.
- Reduction of rebound material during spraying application.
- The product is free from chlorides and hence does not promotes corrosion.
- The product is free from Alkali and non-toxic in nature.

Dosage

The recommended dosage of Sidhya® Quick Crete 140 AF should be between 2.0 % to 10.0% by weight of cementitious. Effects of over dosage can lead to choking of nozzle. An increase in dosage may lead to severe reduction in compressive strength and should be considered while designing the concrete mix.

The optimum dosage of the Sidhya® Quick Crete 140 AF should be determined by preliminary trials at site. The dosages above recommendations can be used if agreed by the client and consultant for special applications along with consultation of Sidhya® technical team.

Compatibility

Sidhya® Quick Crete 140 AF is compatible with all types of cement and binders such as GGBS, Ultra Fine GGBS, Micro silica, Fly ash and Metakaolin. Sidhya® Quick Crete 140 AF when using along with other Sidhya® products should be added separately and must not be blended prior to addition.



Technical Compliances

Sidhya® Quick Crete 140 AF conforms to the requirements of IS 9103: 2007, ASTM C1141 Type I, II Grade 9

Storage

Sidhya® Quick Crete 140 AF has a shelf life of 6 months provided the temperature is kept between +1.0°C to +50.0°C. Please contact Sidhya® technical team if the product falls outside the temperature range.

Packaging

Sidhya® Quick Crete 140 AF is available in 200 liters drums, 1000 litres IBC and bulk tanker. Please contact our Sales Representative for customized packing and more details

Legal Notice

The recommendations related to the application and recommendations are given in good faith based on Sidhya's current experience and knowledge of the products. The benefits stated about the product are only applicable if guidelines provided by Sidhya for storing, handling and mixing are followed under normal conditions. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product is always advised to test the product's compatibility and suitability for the intended requirements and application. Sidhya reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned copies of which will be supplied on request.

Sustainability, Health and Safety

End use of the product must read the Material Safety Data Sheet (MSDS) of the product. The MSDS provides information and advice on storage, handling and disposal of the product and instructions related to physical ecological, toxicological and other safety related data.

Product Data Sheet

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