SIDHYA ASIA
CHEMICAL PRIVATE LIMITED

TDS

PRODUCT DATA SHEET

Sidhya® Grout Fluid 740

Set retarding & stabilizing admixture for cement suspensions

Description

Sidhya® Grout Fluid 740 is a special retarder developed to control the hydration of tunnel grouting systems. The product is a high-performance admixture for greater workability and extended open time of Annular Gap Grout used for back filling. The product's special formulation also has a stabilizing effect which makes the grout more pumpable and easy to store in TBM. The application of Sidhya® Grout Fluid 740 enables increasing the compressive, tensile and flexural strength of annular grout mixes.

Applications

Sidhya® Grout Fluid 740 is a high-performance super retarder designed for extending the hydration process of cementitious suspension and concrete. Aside from extending the initial and final set times and enhance the strength through cement particle dispersion. The product can be mainly used for the following applications:

- Production of high-quality back filling grout in tunneling.
- Production of high extended open time grout up to 72 hours.
- Production of high-quality grout in Gravity dam construction.
- Can be used as a retarder in long haul concrete in Dams.
- Production of hot weather concrete & grouting.
- Ideal for large pours such as dams and raft foundations.
- Helps in avoiding cold joints while pouring.

Mixing

Sidhya® Grout Fluid 740 is not recommended to be added along with dry aggregates and cementitious materials. Sidhya® Grout Fluid 740 should be added to the mixer post addition of full water, cementitious and other additives. To achieve the optimum performance, the product is recommended to have minimum wet mixing period of 60 seconds depending on the mixing conditions.

Technical Specifications

Color	Dark Brown
Appearance	Homogenous
State	Liquid
Specific Gravity	1.19 ± 0.02 @ 25^{0}C
pH	7.5 ± 1.0 @ 25^{0}C
Chloride Ion Content	<0.10%
Alkali content	<1.5 g Na^2O equivalent / liter of admixture.
Shell Life	12 months from the date of manufacturing if stored as per recommendations and original sealed packing.

Advantages

Sidhya® Grout Fluid 740 improves the workability and open time of concrete and grout and hence provides the following advantages:

- Reduces the risk of pumping and choking of Back fill grout in TBMs.
- Stabilizes and controls the hydration time of annular gap grout in TBMs.
- Easy management of grout supply chain on Tunnel boring machines.
- Increases production efficiency of long-haul concrete.
- Enhances the performance of drilling fluids in gravity dam.
- Improves the elastics and compressive strength of grout.
- Improvement in placement of concrete.
- Reduces shrinkage and creep.

Dosage

The recommended dosage of Sidhya® Grout Fluid 740 should be between 0.2% to 2.0% by weight of cementitious. Effects of over dosage can delay the setting time and lead to bleeding and segregation in fresh properties.

The optimum dosage of the Sidhya® Grout Fluid 740 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® Grout Fluid 740 is compatible with all types of cement and binders such as GGBS, Ultra Fine GGBS, Micro silica, Fly ash and Metakaolin. Sidhya® Grout Fluid 735 when using along with other Sidhya® products should be added separately and must not be blended prior to addition.

Important: It is important to conduct preliminary trials when using more than one admixture. In the TBMs application we recommend the setting time can be controlled with modified accelerators such as our Sidhya ® Quick Set AGG.

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Technical Compliances

Sidhya® Grout Fluid 740 conforms to the requirements of IS 9103: 2007, EN 934 -2, ASTM C494 for Type B retarding admixtures.

Storage

Sidhya® Grout Fluid 740 has a shell life of 12 months provided the temperature is kept between +1.0^{0}C to +50.0^{0}C. Please contact Sidhya® technical team if the product falls outside the temperature range.

Packaging

Sidhya® Grout Fluid 740 is available in 200 liters drums, 1000 liters 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.

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