SIDHYA ASIA
CHEMICAL PRIVATE LIMITED

TDS

PRODUCT DATA SHEET

Sidhya® Bentocrete 180

Modified Bentonite for TBM Applications

Description

Sidhya® Bentocrete 180 is a high yield, modified and organic free bentonite designed for Tunneling Applications. Sidhya® Bentocrete 180 is suitable to stabilize the annular gap grouts that are injected around tunnel segments to provide a durable shield around the lining. The enhances the viscosity of the grout and stabilizes the grout with its water retention characteristics. Sidhya® Bentocrete 180 controls the segregation and bleeding behavior of the grout.

Applications

Sidhya® Bentocrete 180 is designed for high lubrication properties, short swelling time and good flow ability. The product also can be used for the following applications:

- Used to back fill grout in TBM tunneling application.
- It can be used in slurry form as a drilling fluid in tunneling.
- Used in construction of diaphragm walls.
- Bored piling foundations and pipe jacking applications.
- Shaft sinking and grouting applications.
- Various other specialized civil engineering applications.

Mixing

Sidhya® Bentocrete 180 is added always directly into water at high speeds to enhances swelling properties of the slurry.

Dosage

Sidhya® Bentocrete 180 dosage varies from one application to another, however the dosage roughly varies from 2.0% to 10.00% of water by mass. To achieve optimum results, trials should be conducted. It is always recommended to use Sidhya® Bentocrete 180 along with our Sidhya® Flow, Sidhya® Grout Fluid and Sidhya® Crete range of products.

Technical Specifications

Bulk Density	Minimum 800 kg/m^3
Color	Brown
State	Powder form.
Specific Gravity [g/c]	2.40 – 2.60
Swelling Index [ml]	20 ml +/- 2 ml (2g)
Appearance	Homogenous
Dry Matter [%]	89.0 +/- 2.0
Moisture Content [%]	11.0 +/- 2.0
pH at 5.5% Solution	9.0 +/- 1.0
Marsh Funnel at 5.5% Solution [Secs]	30 – 45 seconds
Passing through 200 Mesh [%]	Minimum 80%
Gelling Time [Secs]	Instant
Plate absorption value, % by weight	Minimum 400

****Test methods are available on request. For typical analysis of minor elements, please contact our Sidhya® Sales representative****

Compatibility

Sidhya® Bentocrete 180 is compatible with all types of cement and binders such as GGBFS, Fly ash and Metakaolin. Sidhya® Bentocrete 180 is also compatible with different admixtures such as water reducers, retarders, water proofing and non-chloride accelerators manufactured by Sidhya Asia Chemicals Pvt Ltd. or equivalent. We do recommend conducting preliminary trials or contacting a Sidhya® Technical Services Representative for specific information.

Technical Compliances

Sidhya® Bentocrete 180 Tested according to API Specification 13A ISO 13500, IS 12446 2007, API (RP 13 B-1)

Storage

Sidhya® Bentocrete 180 should be stored in dry conditions and not exposed to moisture and direct sunlight and has shell life of 1 year. Loss of rheological and filtrate properties can happen if not stored properly.

Packaging

Sidhya® Bentocrete 180 is available in 25 kg bags, 1 ton jumbo bags and loose quantity available in Bulker. Please contact our Sales Representative for customized packing and more details.

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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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