

## WHITE SAND ANCHOR EP 250

Epoxy-based grout for Anchor Bolt Placement and Fixing

### Description

WHITE SAND ANCHOR EP 250 is a high-performance, solvent-free, two-components epoxy anchoring system for securing horizontal and vertical fixings, such as dowel bars, starter bars, threaded studding, and bolts into concrete or brickwork.

A high strength, corrosion, and chemical resistant anchoring is obtained where speed of installation and early application of load is required.

WHITE SAND ANCHOR EP 250 is available in two grades, Grade (VR) is a flowable design suitable for vertical applications, and grade (HR) has an excellent thixotropic property to be suitable for horizontal applications.

### Uses and Key Functions

- For anchoring activities in concrete, rock, masonry, and brickwork.
- Anchoring grout rout for bolts, dowels, and reinforcing bars into vertical or horizontal holes.
- Permanent installation of reinforcement starter bars.

### Product Working Properties

Type	Solvent-free epoxy-based anchoring grout
Solid Content	100 %
Mixing Ratio	Factory proportioned
Density of the mix	1.9 kg/liter
Pot Life	40 minutes (at 23 °C)
Application Temperature	+5°C to +35°C
Initial Setting	4 hours (at 23 °C)
Full Cure	7 days (at 23 °C)
Compressive Strength (ASTM C579)	96 MPa (at 7 days)
Flexural Strength (ASTM C580)	35 MPa (at 7 days)
Tensile Strength (ASTM C307)	25 MPa (at 7 days)

### Directions for Use

#### Substrate Preparation

It is assumed that the bond between the anchor bolt and the epoxy grout and the bond of the epoxy grout to the concrete foundation is stronger than the bond of the concrete to itself. Typically, concrete will separate next to the bond line of the epoxy and concrete. Therefore, the weakest link in the bond of epoxy to concrete is the concrete itself. The force required to pull concrete apart is its shear strength.

To determine the force required to pullout the bolt separating it at the epoxy to concrete bond, you may use the following equation:

$$F = H \times D \times \pi \times S$$

Where:

F = Bolt pull-out force in kg.

H = Length of the grout hole in cm.

D = Diameter of the grout hole in cm.

$\pi = 3.1415$

S = Shear strength of concrete in kg/cm<sup>2</sup>.

The minimum safety factor of 1.5 in non-critical, and 2.0 in critical applications should be considered.

### Hole Preparation

Anchor bolt diameters should be in the range specified by the designer. Drill the hole to the correct diameter and depth for the particular size bolt being installed. Use of a rotary percussive drill with air flushing is recommended. Apply WHITE SAND ANCHOR EP 250 to only rough-sided, dry, and free of contaminant holes. Brush the bolt hole using a round pipe cleaner-type brush and then blow out all dust and debris.

### Bar Preparation

All bars should be clean, dry, and free of rust or corrosion.

### Estimating Guide

Volume of WHITE SAND ANCHOR EP 250 required in (ml) for bolt diameter per 100 mm depth.

Hole Diameter (mm)	Bolt Diameter							
	12	16	20	25	32	38	45	52
20	20							
25	38	29	18					
32		60	49	31				
38			82	64	33			
45				110	79	63		
52				155	123	91	41	
57					174	141	100	51
64						232	166	117

### Mixing

Mixing of WHITE SAND ANCHOR EP 250 should be carried out with full packs only.

Pour the entire content of the hardener container into the base container and stir well using a mechanical jiffy-type mixer operated at low speed for 2 minutes until a consistent mix is attained.

### Application

The mixed WHITE SAND ANCHOR EP 250 is poured (grade VR), or injected (grade HR) to the hole to about one-third the depth. A sealant gun may be used to inject (grade HR) into the bolt hole.

Insert a bolt or dowel into the hole and rotate to fully coat the bolt and the sides of the bolt holes with the material.

When the bolt is fully pushed in the hole, if needed, continue filling around the bolt with the material.

Allow WHITE SAND ANCHOR EP 250 to cure without disturbance.

### Cleaning

Tools and mixing equipment should be cleaned with WHITE SAND Solv 10 before the material has hardened.

Set material can only be removed mechanically.

### Packaging

1.0 – 4.0 kg pack.

### Storage and Shelf Life

WHITE SAND ANCHOR EP 250 has a minimum shelf life of 12 months when stored in dry warehouse conditions, in unopened and undamaged original packaging.

If stored in high temperatures, and/or high humidity conditions, the shelf life may be reduced.

### Health and Safety

The three components of WHITE SAND ANCHOR EP 250 are non-flammable materials. WHITE SAND ANCHOR EP 250 should not come in contact with skin or eyes. Avoid prolonged inhalation of vapors. Some people are sensitive to epoxy resin, hardeners, and solvents. Gloves, goggles and barrier cream should therefore be used. Ensure adequate ventilation, and if work in enclosed areas, suitable breathing apparatus is recommended.

If mixed material comes in contact with skin, it must be removed before it hardens with a resin removing cream or with soap and water. Do not use solvent. For prolonged irritation, seek medical advice.

In case of accidental eye contamination, wash well with plenty of clean water and seek medical advice.

If swallowed, seek medical attention immediately. Do not induce vomiting.

Do not dispose the material into water or soil. For the sound and valid disposal, consult and follow the related local regulations.

### White Sand Product Quality

Ensuring the achievement of customers' requirements and conformance to national and international standards, all WHITE SAND products are developed and manufactured under the base of a highly quality-oriented Product Development processes, and an independently standardized Quality Management System.

### Technical Support

WHITE SAND provides technical support to its customers, consultations and technical guidance and assistance in many different applications of construction chemicals, tile adhesive and tile grouts selection, concrete repair, and surface preparation and treatments.

### Additional White Sand Products

- Surface Treatments and Primers.
- Admixtures for Concrete.
- Cement Modifiers for Mortars.
- Adhesives and Tiling Systems.
- Concrete Repair Compounds.
- Waterproofing Materials.
- Protective Coatings and Linings.
- Industrial Flooring Systems.
- Plasters and Finishing Materials.

#### Disclaimer

The information given here is based on the best of our knowledge, good faith, experience and laboratory based results and therefore the results will vary depending on the real time application. Also, the values indicated in this Data Sheet here are subject to  $\pm 10\%$  variance due to multiple factors. The performance of our Product depends on the workmanship/quality of application job at the site. Hence White Sand Company for Industry is not responsible for any sort of claims/disputes arising out of any negative results by using our ranges of products. White Sand Company for Industry is not held responsible for use of this product for applications other than specified and/or adopting any faulty application/curing methodologies. It is the user's responsibility to have through this Technical Data Sheet prior to applying our products and to ensure with White Sand Company for Industry that any product information is still prevailing at the time of application. Also the user must be sure that the product is suitable for the use intended and also applied it as specified while taking care of all precautionary measures. While all the products comply with the properties shown on current technical data sheets/brochures, White Sand Company for Industry does not warrant or guarantee the products' performance as it doesn't have any control over factors adopted during its actual application.

