

# Talrakpolygrip® EP

## Two part epoxy resin based anchor compound



The Construction Alchemists

### Description

Talrakpolygrip® EP is a fast curing two part epoxy based prepacked anchor system that needs just mixing of two components together using a mechanical mixer. It provides a very high anchor strength greater than the tensile strength of the concrete suitable for structural rehabilitation, foundation anchor bolt grouting and fixing of dowel bars directly to the concrete. It is also used to Anchor shear connectors to the concrete in repair projects.

### Features & Benefits

- Fast curing
- Available in different consistencies suitable for horizontal & vertical situations.
- Excellent bond strength with most of the construction materials
- Non-corrosive
- High strength
- Vibration resistant

### Primary Application

Talrakpolygrip® EP is useful in the installation of foundation bolts for fixing steel stanchions to the foundations, dowel bars, anchoring of re-inforcing steel in columns for vertical expansion of buildings, rock anchors, fixing shear connectors in rehabilitation projects, etc.

### Technical properties

Properties	<u>Talrakpolygrip EP(P)</u> <u>Pourable grade for</u> <u>(Horizontal Surface)</u>	<u>Talrakpolygrip EP(G)</u> <u>Gungrade for</u> <u>(Vertical Surface)</u>
Compressive Strength	50MPa at 7days	50MPa at 7 days
Tensile Strength	20MPa at 7 days	20MPa at 7 days
Pot Life	30 mins at 27° C	40 mins at 27° C
Specific Gravity	1.16±2	1.18±2

### Design Criteria

The design of the anchors depend on the strength of concrete to which the anchor has to be installed. The bond length for low strength concrete is larger than that for high strength concrete. The pullout test is recommended before deciding the length of embedment for the given combination of concrete and the anchor bar. Different versions of the products shall be used for vertical and horizontal situations.

### Specification Clause

Talrakpolygrip® EP is a fast curing two part epoxy resinous prepacked anchor system that needs just mixing of two components together using a mechanical mixer. It provides a very high anchor strength greater than the tensile strength of the concrete suitable for structural rehabilitation, foundation anchor bolt grouting and fixing of dowel bars directly to the concrete. It is also used to anchor shear connectors to the concrete in repair projects. Separate product versions shall be used for vertical and horizontal situations.

### Application Instruction

#### Preparation

Optimum performance of Talrakpolygrip® EP requires roughened side dust free holes. Uses of rotary percussive drills with air flushing is recommended. Diamond drilled holes should be under-reamed unless necessary safety factors are incorporated. Cast holes should preferably be of inverse dovetail configuration. If parallel sides holes are cast they should be roughened to provide adequate keying. All bars should preferably be de-greased and all flaky rust removed.

#### Mixing

The mixing of Talrakpolygrip® EP should be carried out with full packs only. Pour entire content of hardener into base container which has enough volume to mix both the components. Mixing shall be done using a slow speed resin mixer or by using a suitable hand tool. The base and hardener are supplied in different colours and mixing shall be continued until a homogeneous, uniform coloured mixed material is obtained without any streaks. The mixing time shall be generally 1 - 2mins.

#### Installation

Choose right version of product for the use on horizontal / vertical surfaces.

#### Horizontal Substrate - Talrakpolygrip EP (P)

1. Using the calculated volume of grout based on Table.1, the grout should be poured steadily into the prepared holes. The anchor bar is then pressed into the hole to the required depth. Slight agitation of the bar will assist in achieving complete bond.
2. The bar should then be left undisturbed in the required position until the resin is set.

#### Vertical Substrate - Talrakpolygrip EP (G)

Talrakpolygrip EP (G) mix is loaded into a sealant gun and filled into the pre-drilled holes using the sealant gun. The inserts to be anchored should be pushed into the holes and extra material expelled should be smeared to the top of the annular space using a spatula or any suitable tool.

Table 1

#### Quantity estimating guide

Table indicates volume of Talrakpolygrip® EP polyester resin grout in ml/100mm bond

Hole diameter (mm)	Bolt diameter (mm)	Consumption ml/100mm Bond length
16	10	20
25	12	50
32	16	80
38	20	110
40	25	100

These figures allow for a 25% wastage factor.

If the anchor is in very old concrete, masonry or brickwork the wastage factor should be increased.

## Estimating Packaging

Talrakpolygrip® EP is supplied in 1kg combo pack.

## Storage

Talrakpolygrip® EP has a shelf life of 12 months if kept in dry store in original, unopened containers. If stored at high temperature and/or high humidity conditions the shelf life may be reduced.

## Precautions

### Health & Safety Instructions

Confined areas must be well ventilated and no naked flames allowed. Contact with the skin should be avoided as certain sensitive skins may be affected by contact with the polyester resin. In such cases if contact with the resin occurs, the skin should be washed immediately with soap and water-not solvent. Gloves and barrier creams should be used when handling these products. Eye contamination must be immediately washed with plenty of water and medical treatment sought.

## Fire

Talrakpolygrip® EP polyester resin grout resin is flammable. Confined areas must be well ventilated and no naked flames allowed. Do not smoke during use.



**Talrak Construction Chemicals Pvt. Ltd.**

An ISO 9001:2015 Certified Company

### Works:

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### Important note :

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