

TIEPLUG

Waterproof, fast setting, structural grade cement for tie holes and lifting eye filler

DESCRIPTION

For the filling of tie-holes formed by formwork bolts in new construction, particularly where a rapid setting, durable, waterproof mortar is required. Can also be used for sealing grout holes and voids around fixings in pre-cast elements.

ADVANTAGES

- **USER FRIENDLY:** Materials are pre-packaged and only require mixing with clean water on site.
- **LOW SHRINKAGE:** Maintains high bond strength to substrate and ensures monolithic performance of the repair.
- **RAPID SETTING:** Sets in 30 minutes at 20°C, yielding a durable, high strength mortar.
- **WATERPROOF:** Can withstand 10bar pressure after 72 hours curing.
- **POLYMER MODIFIED:** Ensures enhanced adhesion and low permeability, giving excellent protection from acid gases, moisture ingress and chlorides.
- **WRAS APPROVED:** WRAS approved product with proven track record for use with potable water.
- **FIBRE REINFORCED:** Improved tensile and impact strength. Excellent low sag properties.
- **SAFE:** Non-toxic when cured

TECHNICAL DATA

Mixed Colour:	Concrete Grey
Mixed Density:	2150kg/m ³
Min. Application Thickness:	5mm
Max. Application Thickness:	50mm in vertical and soffit situations
Min. Application Temperature:	5°C
Max. Application Temperature:	35°C
Working Life:	20 minutes at 20°C
Yield / coverage:	4 litres per 8kg tub / .4m ² @ 10mm thickness

Compressive Strength at 20°C:

1 hour	8.5N/mm ²
2 hours	15.0N/mm ²
4 hours	25.0N/mm ²
1 day	39.5N/mm ²
7 days	51.0N/mm ²
28 days	55.0N/mm ²

Bond Strength (BS 6319: Part 4)-Slant Shear Method:

28 days	51.0N/mm ²
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PREPARATION

The areas to be repaired must be free from all unsound material, i.e. dust, oil, grease, corrosion by-products and organic growth. Smooth surfaces should be roughened, all loose material and surface laitance removed.

MIXING

Mix only sufficient **TIEPLUG** as can be used within the working life of the material. Using the mixing scoop provided, proportion the material using the guide mix ratios as follows:

Initial Mixing Ratio:

TIEPLUG : water 6:1 by volume

TIEPLUG : water 9.4:1 by weight

8kg pack requires 850ml of clean water.

Always add powder to water. Small quantities, i.e. less than 2kg, can be mixed by hand. Larger quantities should be mechanically mixed in a clean drum using a slow speed drill and paddle. A normal mixer is NOT suitable. Mix together thoroughly for 1-2 minutes to produce a cohesive thixotropic mortar. If necessary, when volume batching, the consistency can be adjusted by the minimum addition of extra powder or water. Use without delay.

PLACING

For normal applications **TIEPLUG** should be compacted, using a placing technique to remove entrapped air, in layers not exceeding 50mm in vertical or soffit situations, or 100mm deep in pockets. For repairs which require multi-layer applications it is important to ensure that the previous layers are well keyed and stable but not fully set (usually 30-45 minutes dependent upon temperature) prior to the application of subsequent layers.

When the colour and surface texture of the surrounding concrete has to be matched, the final 15-25mm layer should be filled with **FASTPATCH**. Consult the relevant Data Sheet for further information. Final profiling of a high quality can be easily achieved with a clean, dampened steel float.

CURING

TIEPLUG cement used in small repairs does not normally require curing. However, for large repairs, screeds, or its use in hot climatic conditions, normal concrete curing techniques are recommended, i.e. damp hessian or white polythene sheet.

CERTIFICATION

Approved by the Water regulations advisory scheme. Further details available upon request.

CONSUMPTION TABLES



WRAS no. 1702539

RAPID TIE BOLT SYSTEM			
TIE ROD COVER (mm)	TIE ROD SIZE (mm)	TYPICAL NUMBER OF HOLES	
		8kg unit	6:1 Scoop Mix
38	15	90	5
50	15	74	4
75	15	57	3
THROUGH TIE TPYE			
30	26	229	13

* Figures assume holes are filled to concrete wall faces.

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STORAGE & HANDLING

TIEPLUG in manufacturer's sealed tubs requires no special storage facilities. Shelf life is 12 months in dry, frost free conditions with unopened containers at 20°C.

HEALTH & SAFETY

Refer to separate safety data sheet. Copies available by request

PACKAGING & TRANSPORT

Supplied in 8kg plastic tubs. Not regulated for Road Transport

QUALITY ASSURANCE

Norsekem Limited Products are manufactured under quality assured schemes

Norsekem Limited products are guaranteed against defective materials and manufacture. Products are sold subject to the Norsekem Limited Terms and Conditions of Sale, copies of which are available on request. Norsekem Limited endeavors to ensure that the above data and any further advice is correct, Norsekem Limited can not accept liability for the use to which products are put or the way in which they are used. All recommendations stated by the company are made in good faith. Recommendations do not over-ride the basic obligation of the user to satisfy themselves at all times as to suitability of the product for their particular application.



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