Renderoc TG*

constructive solutions

Single component, medium-weight concrete & masonry reinstatement mortar for use in hot climates

Uses

Renderoc TG is suitable for hand application to repairs where light to medium load bearing is required.

Typical applications would include, but not be limited to, the following:

- Vertical & overhead repairs to restore 'covercrete'
- General concrete and masonry repairs
- Voids greater than 10 mm deep
- Repairs to honeycombing
- Larger scale repairs where formwork cannot be erected

Advantages

- High build achievable without formwork - Saving time and expense of multiple applications
- Formulated for use in hot climates
- Can be applied by the wet or dry spray process for fast exceptionally high build repairs with enhanced characteristics
- Low permeability provides good protection against carbon dioxide and chlorides
- Excellent bond to concrete substrate
- Shrinkage compensated
- Contains no chloride admixtures

Description

Renderoc TG is supplied as a ready to use blend of dry powders, which requires only the addition of clean water to produce a highly consistent, lightweight repair mortar suitable for general purpose concrete and masonry repairs.

Technical support

Fosroc offers a comprehensive range of high performance, high quality concrete repair and construction products.

In addition, Fosroc offers a technical support service to specifiers, end-users and contractors, as well as on-site technical assistance in locations all over the world.

Design criteria

Renderoc TG is designed for vertical, overhead or horizontal use without the use of formwork.

Attention to the basic design criteria given below should ensure that the full benefits of this technology are gained in use:

a) Recommended limits for a single application are:

Minimum applied thickness: 10 mm
Large overhead sections: up to 20 mm thick
Vertical sections: up to 50 mm thick
Small pockets or horizontal: up to 100 mm thick
Maximum length: up to 3 m

b) In situations where a substrate/repair barrier is required, or enhanced bond strength/working time is required, or where the substrate is likely to be permanently wet or damp (e.g. seawalls, quays etc.), Nitobond EP epoxy bonding agent should be used.

c) Water addition = 3.6 litres/20 kg or 4.5 litres/25kg bag
Under no circumstances should part bags be used or additional water be employed. Either of these two actions will adversely affect material performance, automatically invalidating Fosroc's standard product guarantee.

Properties

The following typical results were obtained at a water to powder ratio of 0.18 and temperature of 20ºC.

Compressive strength (BS 4450, Part 3)	:	15 N/mm^2 @ 24 hours : 40 N/mm^2 @ 28 days
Flexural strength (BS 4451)	:	6 N/mm^2 @ 28 days
Tensile strength (ASTM C190)	:	2 N/mm^2 @ 28 days
Slant shear bond strength to concrete	:	25 N/mm^2 @ 28 days (BS 6319, Part 4)
Water absorption ISAT (BS 1881, Part 5)	:	0.18 ml/m^2/sec @ 10 minutes : 0.06 ml/m^2/sec @ 2 hours
Coefficient of thermal exp	:	7 - 12 x 10^{-5}/ºC
Setting times (BS 5075)	:	**Initial set :** 2 - 3 hours : **Final set :** 4 - 6 hours
Fresh wet density	:	1850 kg/m^3
Alkali content	:	less than 3 kg/m^3

Note: The low permeability of Renderoc TG retards chemical attack in aggressive environments. The cured mortar is resistant to acid gases, chloride ions, oxygen & water. For specific data regarding chemical resistance, contact the local Fosroc office.

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Method Statement

Renderoc TG should be mixed and applied in strict accordance with the Product Method Statement, a copy of which may be obtained from your nearest Fosroc office.

Limitations

- Renderoc TG should not be used when the ambient temperature is below 5°C and falling
- Renderoc TG should not be part mixed
- Renderoc TG should not be exposed to running water either during application or prior to final set
- Water ponding is not recommended for curing

Estimating

Supply

Renderoc TG	:	20 & 25 kg bags
Nitobond AR*†	:	4 & 20 litre cans

Yield

Renderoc TG	: :	12.7 litres per 20 kg bag 15.8 litres per 25 kg bag
Nitobond AR*†	:	6 - 8 m^2/litre as a primer

Storage

Renderoc TG has a shelf life of 12 months; and Nitobond AR has a shelf life of 6 months, if kept in a dry environment, in its original, unopened packing.

If stored in conditions of high humidity and/or temperature, the shelf life of Renderoc TG may be reduced to as little as 4 months.

Precautions

Health and safety

Renderoc TG contains cement powders which, when mixed with water or upon becoming damp, release alkalis which can be harmful to the skin.

During use, avoid inhalation of the dust and contact with the skin or eyes.

Wear suitable protective clothing - eye protection, gloves and respiratory equipment (particularly in confined spaces).

The use of barrier creams to provide additional skin protection is also advised.

In case of contact with the skin, rinse with plenty of clean water, then cleanse thoroughly with soap and water.

In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice.

If swallowed seek medical attention immediately - do not induce vomiting.

For further information, please refer to the Product Material Safety Data Sheets.

Fire

Renderoc TG and Nitobond AR are non-flammable and thus present no fire hazard.

*** Denotes the trademark of Fosroc International Ltd.**

† See separate data sheet

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