

APTC Tiflex Patch

Lightweight patching and repair mortar

Description

APTC Tiflex Patch is a fine polymer modified mortar formulated for patching and repairing concrete and mortar. Ideal for use in high build repairs, it can be applied in a single layer up to 75mm thick without slumping and with minimal shrinkage whilst maintaining excellent workability and a high bond strength.

APTC Tiflex Patch has very good insulating characteristics and high thermal protection properties offering up to 4 hours fire protection (per AS 1530.4.2019) at 25mm depth of cover.

Uses

APTC Tiflex Patch is suitable for use in the following applications:

- Patching and repairing damaged concrete
- Repairs to vertical and overhead surfaces
- Repairs where a high non slump build is required in one operation
- Fire protection of joiner plates and angles

Features & Benefits

One component, easy to use	High bond strength
High build repairs 10mm to 75mm	Durable
Excellent workability	Insulation and thermal protection properties
Reduced need for formwork & reworking	Up to 4 hours fire resistance (AS 1530.4.2019)

Specifications and Technical Properties

COLOUR	Grey
COMPOSITION	Powder
APPLICATION TEMPERATURE	5°C–35°C
VOC	1g per litre
APPLICATION THICKNESS	10-75mm
COMPRESSIVE STRENGTH	Mouldable >15 MPa Trowellable >8-15MPa
Test method: AS1012.9 AT 20°C and AS2073	
FIRE RESISTANCE	4 hours (minimum applied depth 25mm)

Surface Preparation

All surfaces and substrates must be clean and sound. Any loose particles, grease, oils, silicones, curing compounds or laitance must be removed before application of the product.

Surface Preparation cont'd

Where breaking out is not required, roughen the surface and remove any laitance or contaminants by light scabbling or grit blasting.

New concrete surfaces must be allowed to cure for a minimum of 14 days before application of product

- **Breaking out**—Saw or cut back the edges of the repair locations to a minimum depth of 15mm to avoid featheredging and provide a square edge. Break out the entire area to be repaired up to the sawn edge to minimum depth of 15mm . Clean area and remove any contaminants before placing begins
- **Oil or grease deposits**—Must be removed by steam cleaning , scrubbing with detergent or the use of a degreaser.
- **Steel** — Steel must be cleaned to a bright condition including the back of any exposed steel bars. Corroded steel must be fully exposed and all loose particles , scale or corrosion deposits removed. A grit blaster is recommended for cleaning steel.
- **Formwork**— All faces must be properly sealed to ensure that water is not absorbed from the product.

Priming

On very porous substrates the use of a primer is required. Refer to APTC Australia for recommendations on suitable primers and their application

Mixing

APTC Tiflex Patch must be thoroughly mixed before placing.

Consistency	Water (litres)
Mouldable	1.5 to 1.8 litres
Trowellable	2.2–3.0 litres

Mixing:

- Add required measure of clean drinking quality water to a clean bucket.
- Add one full bag of mortar into the bucket with the mixer in operation. A mechanical forced action mixer with high shear stirrer must be used. **Product must not be mixed by hand. Powder must always be added to the water.**
- When entire contents of bag has been added, mix for a further 3-5 minutes until a smooth, uniform consistency is achieved.
- Mixed product must be smooth, free of lumps and of a uniform consistency

Note: Required amount of water may vary slightly depending on ambient temperature and desired consistency.

Temperature

Low temperature working

- Standard precautions for working with cementitious materials in cold weather should be applied.
- It is recommended that warm water up to 30°C is used when mixing to accelerate strength development.
- At temperatures below 5°C, product must not be applied.

High temperature working

- At temperatures above 35°C, premature setting of product can occur and make working with the product difficult.
- Product must not be used when the ambient temperature is above 35°

Application

APTC Tiflex Patch can applied by trowel or gloved hand. When applying the mixture, ensure the product is firmly and thoroughly compacted on to the substrate and around the exposed reinforcement.

The minimum applied thickness of **APTC Tiflex Patch** is 10mm.

- **Vertical applications**— Product can be applied to 75mm thickness in vertical applications but may be applied up to 100mm in smaller pockets or with the use of formwork. If sagging occurs during vertical application, product must be completely removed and reapplied at a reduced thickness or with a lower consistency. Surface should be correctly reprimed between applications.
- **Horizontal applications**— Product can be applied up to 100mm thickness in horizontal applications
- **Fire resistance protection**— Product **must** be applied to minimum thickness of 25mm where 4 hour fire resistance protection is required

Upon completion of application, product must be protected from direct sunlight or drying winds to prevent rapid surface drying and evaporation.

Finishing & Coating

APTC Tiflex Patch can be finished by striking off with straight edge and closing with a steel float. Wooden or plastic floats or damp sponges may be used to achieve desired surface texture. Do not overwork the completed surface.

APTC Tiflex Patch has good resistance to water penetration once cured however if finished surface is subject to continuous water immersion or chemical attack by solvent or acid, a suitable acrylic or epoxy coating can be applied to seal and dustproof surface. Refer to APTC Australia for recommendations on suitable acrylic or epoxy coatings.

A waterproofing membrane must be used on substrates subject to rising damp or moisture

Note—If the substrate on to which **APTC Tiflex Patch** is applied moves or cracks, reflective cracking will occur in the finished mortar.

Curing

APTC Tiflex Patch must be protected from rapid surface drying and evaporation during curing.

The use of a primer, sprayed brushed or rolled on to the surface in one continuous film is recommended.

Set type	Setting time @ 20°C	Setting time @30°C
Initial Set	2-3 hours	1.5-2 hours
Final Set	4-5 hours	2-3 hours

Drying times are approximate only and are dependent on ambient temperature and weather conditions

Pot life

Setting begins after 45 minutes (@25°C substrate and ambient temperature).

APTC Tiflex Patch should not be used after 45 minutes from time of mixing. Any unused mortar should be discarded. Water must not be added.

Yield

Mouldable	10 to 12 litres per 10kg
Trowellable	14.5 to 20 litres per 10kg
Per 10kg bag (@ 3.0 litres per 10kg)	20 litres per 10kg

Approximate yields are obtained if mixed in accordance with recommended procedures and accurate measured water content.

Clean up

APTC Tiflex Patch can be removed from tools and equipment with clean water immediately after use.

Packaging

10kg poly lined bags

Storage & Shelf Life

Storage: Store in a cool, dry environment completely away from moisture, damp and humidity

Shelf life: 8 months from production date in unopened bag

Limitations

- **APTC Tiflex Patch** must not be mixed by hand
- Do not add additional water to mixture during application
- Do not use after 45 minutes from time of mixing. Any unused or hardened mixture must be disposed of
- Do not use when ambient or surface temperature is below 5°C or above 35°C.
- Do not add water to powder. Product must always be mixed by adding powder to water

Limitations cont'd:

- The suitability of the product for each intended use must be determined by the purchaser prior to the application of the product.

Health & Safety

APTC Australia supports best practice in material handling; gloves, mask, safety goggles and protective clothing should be worn when handling and using this product. Ensure adequate ventilation when applying.

Avoid inhalation of dust and contact with skin and eyes. Suitable protective clothing, dust masks, gloves and eye protection should be worn.

Continual or extended contact with cement products can cause skin irritation. Can cause serious eye damage. May cause respiratory irritation or breathing difficulties if inhaled. Material highly irritating and mildly corrosive if swallowed. Keep out of reach of children. **SKIN:** If product comes into contact with skin, wash affected areas thoroughly with water and soap, if available. In event of irritation, seek medical attention. **SWALLOWED:** DO NOT induce vomiting. Give a glass of water and seek medical advice. **EYES:** In case of contact with eyes, immediately hold eyes open and wash with fresh running water. Ensure irrigation under the eyelids by occasionally lifting upper and lower lids. If pain persists seek medical attention. **INHALATION:** Remove from contaminated area and into fresh air. If breathing is shallow, ensure clear airway and apply artificial respiration. Seek medical advice.

If poisoning occurs contact a doctor or Poisons Information Centre Ph, 13 11 26 (Australia)

Fire: This product is non flammable

Safety data sheets (SDS) for this product are available on the APTC Australia website www.aptc Aust.com.au. Read the TDS and SDS carefully before using any product.

Disclaimer

The information and recommendations provided regarding the application and use of APTC Australia products are based on APTC Australia's current knowledge and experience, assuming proper storage, handling, and application according to our guidelines. However, due to variations in materials, substrates, and site conditions, we cannot guarantee any warranties related to merchantability or fitness for a particular purpose, nor assume any liability based on this information, written recommendations, or other advice. Users must assess the suitability of the products for their specific application and purpose. APTC Australia reserves the right to modify product properties at any time. Third-party proprietary rights must be respected. All orders are subject to our current terms of sale and delivery. For the most up-to-date product information, users should refer to the latest version of the local product data sheet, which can be provided upon request.