

# APTC Tiflex GP Grout

High strength structural grout

## Description

**APTC Tiflex GP Grout** is a Class A, non shrink, general purpose cementitious grout designed for most void filling grouting applications. Premixed and ready to use, it contains a controlled gaseous expansion system to compensate for shrinkage and settlement before hardening and has no iron metallic content.

**APTC Tiflex GP Grout** can be pumped, trowelled, rammed or flowed to application areas and has a lower water to cement ratio to reduce drying shrinkage, increase durability and reduce porosity.

## Uses

**APTC Tiflex GP Grout** is suitable for use in the following applications:

- All general purpose grouting applications
- Precast and prestressed panels
- Grouting in column bases, filling core holes, rod holes and defects in concrete
- Caulking of joints and pipes

## Features & Benefits

Premixed and ready to use	Lower water to cement ratio
Pump, trowel, ram or flow	No iron metallic content
Gaseous expansion system for shrinkage compensation	Mix to stiff, plastic, flowable or liquid viscosity

## Specifications and Technical Properties

COLOUR	Grey			
COMPOSITION	Powder			
POURING TEMPERATURE	20°C			
VOC	1g per litre			
APPLICATION THICKNESS	10-120mm			
COMPRESSIVE STRENGTH (MPa)		24 hours	7 days	28 days
	Stiff	30-40	60-75	75-85
	Plastic	25-30	50-60	65-75
	Flowable	20-25	35-40	50-60
	Liquid	15-20	30-40	40-50

## 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.

- Substrate must be abraded back to a sound concrete surface
- Bolts and anchor holes must be cleaned by blowing the hole free of dust and any loose materials
- Base plates must be free of all rust, oil and grease and air pressure relief holes for venting must be provided.

### Pre-soaking

Concrete substrates must be pre-soaked for minimum of 6 hours before grouting. Excess water should be removed immediately before pouring and any anchor/bolt holes should be blown out to ensure there are no traces of free water left.

### Formwork

Formwork must be constructed to allow rapid and continuous filling whilst remaining leak proof and water tight. It is recommended that foam rubber strips or a suitable sealant are used underneath the formwork.

**Note:** Due to the expanding nature of the grout, formwork must not contain any unrestrained areas.

## Mixing

**APTC Tiflex GP Grout** requires between 3-4.4 litres of clean drinking water per 20kg bag depending on the desired consistency. Drinking quality water must always be used.

Consistency	Water (litres)
Stiff	3 litres
Plastic	3.1 to 3.6 litres
Flowable	3.6 to 4 litres
Liquid	4 to 4.4 litres

Mixing:

- Add pre-measured water to a clean bucket
- Gradually add powder into the water whilst continuously mixing. A cage or impeller style mixing stirrer powered by a heavy duty electric mixing drill must be used. Spiral mixers must not be used as they can result in aeration of the mixture. **Product must not be mixed by hand.**
- When entire contents of bag has been added, mix for a further 3-5 minutes
- Mixed product must be smooth, free of lumps and of a uniform consistency

Note: the grouting operation must be continuous. Ensure sufficient labour and mixing capacity is available before commencing

## Temperature

### Low temperature working

- At temperatures below 5°C, the cure rate and strength development rate of **APTC Tiflex GP Grout** will be substantially reduced.
- If early strength is required, it is recommended to use heated water to bring the temperature of the mixed product to 25°C. Do not exceed this temperature.

### High temperature working

- At temperatures above 30°C it is recommended to use water below 20° when mixing.
- Keep all materials in a cool place away from sunlight. Shade screens should be used to shelter application area from the sun.
- If ambient temperatures are excessive, grouting should be conducted in the early morning or late afternoon.

## Application & Pouring

**APTC Tiflex GP Grout** can applied in a thickness between 10mm–120mm.

The desired ambient temperature for pouring grout is approximately 20°C. At this temperature, grout must be placed within 25 minutes of mixing to ensure the expansion process is maximised. The entire area to be grouted must be filled within this time frame.

- Use a suitable head box to ensure a continuous flow of grout. The grout head must be maintained to enable a continuous grout front.
- Place/pour grout from one side to minimise the possibility of trapped air or bubbles
- Do not use mechanical vibrators to assist the flow of grout as this may cause separation of the aggregate
- Immediately discard any material that displays signs of stiffening

**On completion of grouting, the exposed areas should be covered with wet hessian or plastic sheeting to reduce excessive moisture loss.**

### Expansion time

- Start—15 minutes
- Finish— 2 to 3 hours

## Drying

Initial set time		Final set time	
Stiff	2.5 hours	Stiff	3.5 hours
Flowable	4 hours	Flowable	5 hours
Plastic	4.5 hours	Plastic	7 hours
Liquid	5 hours	Liquid	8 hours

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

## Drying cont'd:

**Insufficient curing time can result in plastic cracking and drying shrinkage on the surface of the grout**

- Removal of formwork—at ambient temperatures, minimum 24 hours after completion of grouting
- Removal of coverings—minimum 6 days after completion of grouting.

## Yield

<b>Stiff</b>	10½ to 11 litres per 20kg
<b>Flowable</b>	10½ to 11 litres per 20kg
<b>Plastic</b>	11 to 11½ litres per 20kg
<b>Liquid</b>	11 to 11½ litres per 20kg
<b>Bags per m<sup>3</sup></b>	85 to 95 depending on consistency

Coverage/yield rates are a guide only and depend on desired consistency and application

## Clean up

**APTC Tiflex GP Grout** should be removed from tools and equipment with clean water immediately after use.

## Packaging

20kg bags

## Storage & Shelf Life

Storage: Store in a cool, dry and elevated place. Protect from high humidity.

Shelf life: 12 months from production date in unopened bag

## Limitations

- **APTC Tiflex GP Grout** must not be mixed by hand
- Do not add additional water to mixture
- Do not retemper
- Do not use mechanical vibrators to assist in flow as separation of aggregate will occur
- Do not mix with a spiral mixer
- Any unused or hardened mixture must be disposed of. Do not use.
- 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.



## Health & Safety cont'd

Product causes skin irritation. Causes serious eye damage. May cause respiratory irritation or breathing difficulties if inhaled. May cause damage to organs through prolonged or repeated exposure. Keep out of reach of children. **SKIN:** If product comes into contact with the skin, remove contaminated clothing & wash off thoroughly. Seek medical advice if irritation occurs. **SWALLOWED:** DO NOT induce vomiting. Give a glass of water and seek medical advice. **EYES:** In case of contact with eyes, hold eyes open and flood with water for at least 15 minutes. Seek medical advice. **INHALATION:** Remove from contaminated area. Apply artificial respiration if not breathing. Seek medical advice.

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

Safety data sheets (SDS) for this product are available on the APTC Australia website [www.aptc Aust.com.au](http://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.