

AnchorPro EP GP

Three-Component | Solvent-Free | Multi-Purpose | High-Strength Fluid Epoxy Grout

High-performance, solvent-free, non-shrink, high-strength, free-flowing, impermeable three-component epoxy mortar to fill intricate spaces, free from segregation and bleeding, for pile cap surfaces and general void filling for gap thickness between 15 mm upto 100 mm.



PRODUCT DESCRIPTION

AnchorPro EP GP is a high-performance, solvent-free, non-shrink, high-strength, free-flowing, impermeable three-component epoxy mortar to fill intricate spaces, free from segregation and bleeding, for pile cap surfaces and general void filling.

It has good adhesion to steel and concrete and ensures proper transmission of static and dynamic loads to foundations, making it ideal to encapsulate piletap waterproofing applications. It is suitable for application thickness of 15 mm to 100 mm in a single pour without cracking due to exothermic reaction and is resistant to oil, synthetic lubricants, water and most chemicals.

WHERE TO USE

Typical Applications

AnchorPro EP GP is used wherever a high-strength, impermeable epoxy grout is required for load transfer and void filling:

- Foundations for general heavy machinery.
- Anchors, crane and transporter rails, tie-rod fasteners and bolt fixing in existing concrete, stone, rock and steel subject to vibration and chemical attack.
- Structural filling of holes and cavities in concrete.
- Bridge bearing applications.
- Re-profiling and waterproofing of pile caps.
- New and old machine base plates where chemical and acid spillage occurs.



Suitable Substrates

- Concrete and steel — sound, dimensionally stable, clean, dust-free and free from oil, curing compound, gypsum, paint, corrosion deposits and algae.
- Surface scabbled to remove laitance and expose aggregate; do not use bush hammers that crush the aggregate.
- All metal components in contact mechanically abraded to a bright white metal finish; corrosion removed in accordance with ICRI Technical Guideline No. 03730.
- Formwork secure and watertight using foam rubber strip or mastic sealant; apply **BondPro Release WB / SB** release agent.

PRODUCT HIGHLIGHTS / BENEFITS

High Strength | Rapid Gain

High tensile, flexural and compressive strength with rapid installation and strength gain.

Excellent Fatigue Resistance

Excellent fatigue resistance and low creep under sustained loading and long-term service.

Non-Shrink | Damp Tolerant

Non-shrink and damp tolerant with excellent impermeability to water; reduces the risk of shrinkage cracking.

Efficient Load Transfer

Ensures efficient load transfer to foundations and lasting stability and alignment to expensive machines.

Chemical Resistant

Withstands attack by dilute acids, alkalis, oil, petrol, ammonia and ground water; ideal under dynamic loads and chemical attack.

No Primer | Chloride Free

Exceptional bond to concrete and steel without independent primer; chloride free with no metallic iron content to cause staining.

APPLICATION GUIDELINES

As with all epoxy resin applications, the quality of surface preparation has a direct effect on performance and durability. The general recommended guidelines are as follows:

Substrate Preparation & Formwork

- Scabble the surface to remove laitance and expose aggregate. Abrade all metal in contact to a bright white metal finish and remove corrosion per ICRI 03730.
- Ensure formwork is rigid, secure and watertight; gap between perimeter formwork and plate edge not exceeding 75 mm on the pouring side and 25 mm opposite.
- Apply **BondPro Release WB / SB** or other approved release agent to facilitate easy removal of formwork after casting.

Mixing

- Components are supplied in correct mix proportions for whole-pack mixing on site; no other materials should be added.
- Add the reactor container contents to the base component while stirring slowly, ensuring complete transfer. Mix 1–2 minutes, then slowly add the aggregate and mix a further 2–3 minutes until a flowing, pourable, lump-free consistency is achieved.
- Mixing for too long can entrain air. Use within the specified usable life; discard stiffened material.

Placing & Finishing

- Allow to stand free for 5 minutes, then place in a single continuous operation in the manner of shortest flow. No vibration is required; introduce slowly to prevent air entrapment.
- Maintain a constant hydrostatic head of at least 15 cm. Place 15 mm to 120 mm in a single pour. Allow the grout to set prior to removal of formwork (normally after 6 hours).
- Prior to membrane application to the piletop, lightly sand to remove release agent and provide an adhesion key; carry out a membrane adhesion trial.

CURING

Cure time depends on the temperature of the base and foundation rather than the ambient air temperature. Unless the ambient air temperature has been constant for several days, the base / foundation temperature will generally be lower than air temperature.

CLEANING

Clean tools, equipment and mixers with clean water immediately after use (before hardening). Cured material can be removed mechanically.

RECOMMENDATIONS

- Avoid application during the hottest times of the day and in direct sunlight; use between 5°C and 50°C.
- Only full units shall be mixed by mechanical means; do not part-mix or alter the ratio of resin components in any way.
- Do not overwork and avoid using mechanical vibration.
- **AnchorPro EP GP** is not suitable for sealing joints which may be subject to future movement.
- The product should not be exposed to moving water during application or prior to full cure.
- Greater thicknesses may be achievable depending on repair configuration and the volume of reinforcing steel.

STORAGE

18 months from manufacturing date in original, unopened packaging, under cover, in dry conditions away from humidity, heat and moisture, protected from extreme temperatures, rainfall and direct sunlight. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.

HEALTH & SAFETY

As with all construction chemical products, caution should always be exercised. Protective clothing such as gloves, goggles and a mask should be worn. Treat any splashes to the skin or eyes with fresh water immediately. Should any of the product be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately. For further information, refer to the appropriate Product Material Safety Data Sheet.

TECHNICAL CHARACTERISTICS

PRODUCT IDENTITY

DATA	TEST METHOD	RESULT
Appearance	—	Three-component epoxy grout
Colour	—	Grey
Mix Density	—	approx. 2,000 ± 50 kg/m³
Mix Ratio	—	Three-component, whole-pack
Packaging	—	20 litre kit
Water Penetration	DIN 1048-5 @ 5 bar, 72 hrs	Nil
VOC Content	—	< 20 g/litre

APPLICATION DATA

DATA	TEST METHOD	RESULT
Working Time	—	60 min @ 25°C 30 min @ 40°C
Application Temperature	—	+5°C to +40°C
Service Temperature	—	-10°C to +70°C
Application Thickness	—	15 mm to 120 mm single pour
Set / Formwork Removal	—	normally after 6 hours
Coverage / Yield	—	1 litre/m² for 1 mm thickness

TEST DATA

DATA	TEST METHOD	RESULT
Compressive Strength	BS EN 196-1	> 115 N/mm² (7 days)
Flexural Strength	BS EN 196-1	> 45 N/mm² (7 days)
Tensile Strength	BS EN 196-1	> 10 N/mm² (7 days)
Bond Strength	—	Greater than the tensile strength of concrete
Chemical Resistance	—	Good resistance to inorganic acids, organic acids, oil and hydrocarbons

* All values given are subject to 5-10% tolerance.

* At +23°C and 50% relative humidity. Higher temperatures reduce, lower temperatures increase the times given.

* Properties listed above are based on controlled laboratory samples and tests. Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

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