

CRACK PRO 1200PS

TECHNICAL DATA SHEET

STRUCTURAL INJECTION EPOXY

DESCRIPTION

CRACK PRO 1200PS is a two-component epoxy adhesive used to seal and create durable bonds for crack repairs, structural repairs, and bonding freshly mixed concrete to hardened concrete. It can also fill voids and cracks in concrete, masonry, and other substrates. Additionally, it is suitable for injection, as a binder in epoxy mortar, as an anchoring adhesive, or for high friction surface treatments (HFST) on concrete, asphalt, or other substrates. When mixed with dry, bagged aggregate, it becomes a high-quality spall repair product that is ready for grinding and open to traffic in less than 1 hour.

Advantages

- High Strength/Low Modulus: Provides robust structural bonding while allowing some flexibility.
- Impermeable Barrier: Forms a thin, impermeable layer after curing to protect against moisture ingress.
- Fast Curing: Quick cure formula reduces downtime and accelerates project completion.
- Non-Toxic: Safe for human consumption water after curing, making it ideal for use in potable water applications.
- Versatile Applications: Suitable for various substrates including concrete, masonry, and asphalt.
- Temperature Resistant: Performs well under a wide range of temperatures.
- High Adhesion: Excellent bonding properties ensure strong adhesion to various materials.
- Chemical Resistant: Resists a wide range of chemicals, making it suitable for industrial environments.
- Durable: Long-lasting performance even under heavy mechanical stress.
- Easy Application: Simple mixing and application process.

CRACK PRO 1200PS PROPERTIES

Viscosity	2,210 Cps @ 25°C	Service Temperature (After Curing)	-7°C Up To 50°C
Colour	Clear To Light Amber	Cure Temp	24 Hours
Gel Time (60 G)	25 - 30 Minutes	Storage Conditions	5°C – 35°C (40°F – 95°F)
Tack Free Time (23°C)	3 To 5 Hours	Size	600mL
Tensile Strength (ASTM D638-14)	29.03 MPa	Ratio	1:1 Mix
Compressive Strength (ASTM D695-15)	55.22 MPa	Shrinkage On Cure	0.2%
Flexural Strength (ASTM D790-17)	35.38 MPa	Heat Deflection Temp	49°C (120°F)

INSTRUCTIONS

1. Before commencing with cartridge replacement or product mixing, ensure thorough preparation of bonding surfaces. Ideally, aim to consume an entire cartridge without interruptions to maintain consistent flow.

SURFACE PREPARATION

- For optimal results, prepare the surfaces meticulously. Whether dealing with old or new concrete, cleanliness is paramount. Surfaces must be devoid of any contaminants such as dust, dirt, grease, wax, or oil. Smooth surfaces require mechanical roughening before application. Old Concrete: Must be clean, completely dry, and profiled or textured. Ensure there is no moisture present.
- New Concrete: Must be a minimum of 28 days old.
- Ensure the surfaces to be bonded are sound and clean, free of dust, dirt, grease, wax, oil, or any other contaminants.
- Smooth surfaces should be mechanically roughened with a wire brush or sandpaper before application.

CARTRIDGE SET-UP

1. While preparing the cartridge, keep it upright to prevent any material leakage. Follow these steps:
 - a. Shake the cartridge for a minute, then let it stand upright for another minute to allow bubbles to rise.
 - b. Insert the cartridge into the ACTECH Heavy Duty Dual Cartridge Gun, remove the plastic cap and plug.
 - c. Dispense the material into a disposable container until both resin and hardener flow evenly.
 - d. Attach the flow control port and nozzle, then slowly dispense the material through the nozzle.

GRAVITY FEED CRACK REPAIR FOR HORIZONTAL APPLICATIONS

- CRACK PRO 1200PS is designed to address a range of crack widths, from fine to medium (3mm to 8mm). For optimal results on wider cracks, follow the steps below:
 - a. Crack Repair
 - i. Preparation:
 - Prepare the crack or spall by ensuring the substrate and environment are completely dry.
 - Clean the crack with a wire brush and remove any debris.
 - ii. Injection Method:
 - For horizontal slabs, inject CRACK PRO 1200PS directly into cracks by placing the nozzle tip over the crack.
 - Allow the adhesive to penetrate and top-off as needed.
 - For larger cracks, insert backer rods or sand to control adhesive loss.
 - Maintain a minimum adhesive depth of 12mm.
 - Keep the adhesive flowing through the nozzle to prevent hardening.
 - iii. Finishing:
 - The repair will be tack-free in 12-20 minutes at 24°C.
 - Excess material can be removed shortly after application.
 - The surface can be ground smooth one hour after application.
 - Allow full cure before subjecting to traffic (approximately 1 hour).

SPALL PATCH APPLICATION

To avoid a feathered edge, cut around the spall into sound concrete with a grinder or circular saw using a diamond or concrete abrasive blade. Clear all loose concrete within the spall and follow surface preparation instructions diligently. Estimate the required product amount, mix Part A and Part B thoroughly at a 2:1 ratio, and add 4-5 parts by volume of kiln-dried sand or aggregate. Pour and trowel until smooth/level, with a maximum mortar thickness of 70mm per coat.

CURING PROBOND

- CRACK PRO 1200PS typically cures within 3 hours after application at a temperature of 24°C. Following this duration, CRACK PRO 1200PS can undergo mechanical grinding, be coated with paint or other architectural coatings, and is ready for full traffic.

APPLICATION TEMPERATURE

- The substrate and ambient air temperature should range between 5°C and 35°C during application. If the work environment or substrate temperature drops below 21°C, it is advisable to condition the product to a temperature between 21°C and 24°C before use. Extremely cold product may thicken, while excessively warm conditions can accelerate the reaction process.

LIMITATIONS

- Sanding before over coating with paint or other architectural coatings enhances adhesion. Conduct a small test area before proceeding with the entire project.
- Do not thin the product with solvents, as this inhibits curing.
- CRACK PRO 1200PS is not suitable for repairing cracks subject to movement.
- Designed for small patch repairs only; excessive heat may occur in deeper or larger repair areas, potentially causing swelling, smoking, and cracking.
- Prior to any substrate preparation, installation, or finishing methods involving CRACK PRO 1200PS, be aware of potential risks and use appropriate personal protective equipment (PPE). Consult substrate manufacturers for Safety Data Sheets (SDS) as needed.



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Packaging

- Size: 600mL Cartridges

Clean Up

After use, clean tools and equipment promptly with a mild solvent to prevent the epoxy from hardening. Ensure that the epoxy does not cure on tools and equipment, as cured material must be removed mechanically.

Shelf Life

CRACK PRO 1200PS has a shelf life of 24 months when stored in the original, unopened packaging. For optimal longevity, store in a dry place at a temperature of 23°C and 50% relative humidity.

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