PRODUCT DESCRIPTION
Chockfast PG-2089 is a 100% solids, two-component, equal volume, epoxy system used in combination with thoroughly dispersed fillers and a compatible curing agent. It has the consistency of peanut butter. Due to its excellent adhesion, overall physical properties and characteristics, PG-2089 is most versatile and accepted as a general purpose mortar adhesive that can even be placed on vertical and overhead surfaces without sagging.

USE & BENEFITS
PG-2089 is a versatile epoxy mortar/grout designed for general repair and maintenance. It can be used as an adhesive to join concrete to concrete, masonry or dissimilar materials. The bond is strong and surpasses the strength of concrete. It is useful as an adhesive to attach tiles, mosaics, glass or other objects to wall or floor surfaces in areas where strength, waterproofing and durability are desired.

As a filler, it is ideal for effective treatment of cracks, voids, and other defects in concrete, brick or block structures. As a sealant, it is used to fill cracks prior to injection repair. Due to its excellent adhesion and non-shrinking properties, PG-2089 ensures permanent repairs of small holes, depressions, and spalled areas.

ADVANTAGES
- Pre-Blended Aggregate in Base & Reactor
- Can Be Used on Vertical & Overhead Surfaces
- Waterproof
- Non-Sagging
- Non-Shrinking
- 100 % Solids

SURFACE PREPARATIONS
Concrete Surfaces: All surfaces must be clean, free of dirt, oil, grease, traces of asphalt, efflorescence and frost free. Substrates may be dry or damp, although best results are obtained on a dry surface. New concrete must be fully cured (28-day minimum).

Grease, wax, or oils must be removed with an industrial grade detergent or a degreasing compound. After scrubbing, follow with mechanical cleaning. (Ref. ASTM D 4258). Remove paint, sealers, curing compounds, loose concrete, mortar drippings, foreign matter, contaminated or deteriorated concrete by shot-blasting, bush-hammering, grit-blasting, scarifying or other suitable mechanical means. Follow mechanical cleaning with vacuum cleaning. (Ref. ASTM D 4259).

Acid-etching with 10% hydrochloric acid should be used only if there is no practical alternative. It must be followed by pressure washing, scrubbing and flushing with clean water. Check for removal of acid with moist pH paper. (Ref. ASTM D 4260). The prepared surface must be clean, free of dust and textured to ensure a mechanical bond. Remove the surface layer of all finished or formed concrete.

Steel Surfaces: Remove dirt, grease and oil with a suitable, industrial grade, cleaning and degreasing compound. (SSPC-SP-1). Remove rust and mill scale by grit-blasting. Blast steel to white metal. Follow grit-blasting with vacuuming or oil-free, dry-air blast. (SSPC-SP-1 0)(NACE-2). Working time of mixed material is one hour at 72°F (22°C), longer at lower temperatures, shorter at higher temperatures.
MIXING AND APPLICATION INSTRUCTIONS

Mixing:
Mix only the amount of material that can be used within the pot life. Measure (ratio) each component carefully and then add Part B (Hardener) to Part A (Resin). Mix 1 parts A to 1 Part B by volume. Mixing can be manually with a stout wood stick for small applications or by placing both components on a hawk or flat tray and mixing by trowel. Best mixing is performed using a low-speed drill (600 rpm) and mixing paddle (i.e. a Jiffy Mixer). Carefully scrape the sides and bottom of the container while mixing. Keep the paddle below the surface of the material to avoid entrapping air. Mix thoroughly 3-5 minutes until a uniform color is achieved.

Application:
Adhesive Use - Although this product will adhere to a damp surface, the best results are obtained when bonded to a dry surface. Remove free standing water by air blast or squeegee. Apply with trowel, spatula or caulking gun to both surfaces to be bonded. Place surfaces in direct contact; secure firmly in position until cured. The air and surface temperatures must be above 50°F and rising.

Filler, Mortar or Surfacing: Fill entire void, opening or defect. Mortar should be pressed firmly to avoid "bridging". On deep void or crevices, PG-2089 can be injected with conventional caulking gun equipment. PG-2089 is easily smoothed by keeping application tools clean and lightly wetted with mineral spirits. Do not add any solvents of any type to the PG-2089. Tools and equipment should be cleaned promptly while the mortar remains uncured.

Grouting: The cavity must be free of water before grouting. Fill cavity with bonding agent. Tamp and strike off level with surrounding surface.

REINFORCING BARS
Steel reinforcing bars, known as rebar, are a familiar feature of concrete structures. They are used to improve the tensile and shear strength of the structure. The coefficients of linear thermal expansion of steel and concrete are similar and compatible, but epoxy resin products have a coefficient two to five times as great and this can cause stress to build up inside the grout which can lead to cracking.

The tensile strength of epoxy grout is at least six times that of concrete, the shear strength at least five times, so horizontal rebar is not as important as it is with concrete. In fact, the use of horizontal rebar is NOT recommended when using epoxy grouts.

Where significant unloaded areas Epoxy Grout occur it is advisable to tie them to the concrete with short vertical pieces of rebar or "All-Thread" rod. This should always be done on new concrete, at corners and edges in general to prevent “edge curl” or the tensile failure of the concrete. Where possible the dowels should be arranged as follows: 12” apart; 3” in from the edge of foundation and not closer than 1” from the top surface of the epoxy grout.
PHYSICAL PROPERTIES

| PROPERTY                  | MINIMUM/MAXIMUM | UNIT  | STANDARD  \\n|---------------------------|-----------------|-------|-----------
| COMPRESSIVE STRENGTH      | 7,000 psi       |       | ASTM D-965 \\
| TENSILE STRENGTH          | 3,000 psi       |       | ASTM D-638  \\
| TENSILE ELONGATION        | 3 percent       |       | ASTM D-638  \\
| HARDNESS                  | 70 Shore D      |       | ASTM D-2240 \\
| TENSILE SHEAR             |                 | 1,000 psi (6.9 MPa) @ 3 days at 77°F (25°C) | ASTM D-638  \\
|                           |                 | 1,800 psi (12.4 MPa) @ 28 days at 77°F (25°C) | ASTM D-638  \\

PRODUCT INFORMATION

| PROPERTY         | VALUE                  | Stainless  \\n|------------------|------------------------|-----------
| COLOR            | Cement Gray            |           \\
| MIX RATIO        | 1 : 1 By Volume        |           \\
| POT LIFE         | Averages 2 to 3 hours for a one pound volume at 72°F (22.2°C) | ASTM D-638  \\
| CURE TIME        | Within an average of 6 to 8 hours, depending upon mass, air and surfa- |           \\
| CHEMICAL RESISTANCE | Resistant to mild mineral acids, alkali, detergents, solvents, skydrol, |           \\
| SHELF LIFE       | One year minimum in unopened cans. |           \\
| CLEAN UP         | Mixed epoxy is much easier to clean up before it hardens. Solvents such as acetone, methyl ethyl ketone (MEK), or xyline may be used. Commercial epoxy/paint strippers/solvents are also recommended for hardened epoxy. Consult solvent manufacturer’s usage recommendations. |           \\
| UNIT PACKAGING   | 2 gal units (7.57 L)   |           \\
| UNIT COVERAGE    | 231 in³ (7871 cm³) per gallon | ASTM D-638  \\
| LIMITATIONS      | Application temperature range is 50° to 105°F (10° to 41°C). Heavy, large overhead applications should be applied in multiple applications to the desired thickness. Do not add solvents or water to epoxy compo- |           \\
| CAUTION          | ITW adhesives are two-component epoxies formulated for industrial and professional use only, and must be kept out of the reach of children. These products contain epoxy resins and amine curing agents which may be CORROSIVE and potentially HARMFUL to your health if not stored and used properly. Hazards can be significantly reduced by observing all precautions found on Material Safety Data Sheets (MSDS), product labels and technical literature. Please read this literature carefully before using these products. |           \\
| REFERENCE        | For additional details, please contact your local representative of our Worldwide Distributor Network or ITW Performance Polymers. |           \\

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