

NON-SAG, HIGH-MODULUS, HIGH-STRENGTH DOWELING GEL

DESCRIPTION

EP-GEL FAST is a two-component, 100% solids, high-modulus epoxy gel adhesive that offers exceptional strength in doweling and anchoring applications.

APPLICATIONS

EP-GEL FAST is ideal for adhering dowels, anchoring bolts, and reinforcing steel in concrete for full depth concrete pavement repairs. Ideal for vertical and horizontal patching or structural bonding of concrete. EP-GEL FAST may also be used to seal cracks and set injection ports prior to epoxy injection applications.

ADVANTAGES

- Fast-setting (20-minute working time at 75°F)
- High strength adhesive
- Little or no odor
- 100% solids
- Easy to mix - 1:1 ratio and pre-measured cartridges
- Moisture-insensitive formula for damp environments
- Easy dispensing from pre-measured cartridges
- High-modulus, non-sag gel consistency for use in horizontal and vertical down installations
- Non-abrasive epoxy works extremely well in bulk dispensing pumps for efficient application
- For use between 40°F to 110°F

COMPLIANCES

- ASTM C881 (Type I, II, IV, & V. Grade 3. Class B & C.)
- AASHTO M235
- VOC compliant, 0 g/L
- Made in America

PACKAGING

8.6 oz. cartridge

- Uni-cartridge (1:1 mix ratio)
- 12 cartridges per case

21.2 oz. cartridge

- side by side cartridge (1:1 mix ratio)
- 12 cartridges per case

1-gallon unit

- Component A: (1) 1-gallon can (partial fill)
- Component B: (1) 1-gallon can (partial fill)

2-gallon unit

- Component A: (1) 1-gallon can
- Component B: (1) 1-gallon can

10-gallon unit

- Component A: (1) 5-gallon pail
- Component B: (1) 5-gallon pail

100-gallon unit

- Component A: (1) 50-gallon drum
- Component B: (1) 50-gallon drum

Appearance of Components: A - White, B - Black

Shelf Life: 2 years in original unopened container

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Storage: 40°F to 95°F in dry and dark conditions

Temperature Considerations: IMPORTANT! Epoxy Resins are temperature sensitive and care should be taken to condition all components to between 70°F to 75°F for a minimum of 24 hrs. prior to mixing and placement. Temperatures colder than stated range increase viscosity of resins and inhibit mixing and flow of materials. Temperatures warmer than stated range decrease viscosity of resins, hasten the cure and reduce the working time. Mixing and curing at less than ideal temperatures, <60°F or >95°F, will require special considerations.

COVERAGE

Rebar Size	Hole Diameter	Hole Depth	Anchors Per Cartridge (21.2 oz)
3/8"	7/16"	3"	121
3/8"	7/16"	6"	60
1/2"	9/16"	5"	51
1/2"	9/16"	8"	32
5/8"	3/4"	6"	21
5/8"	3/4"	9"	14
3/4"	7/8"	7"	15
3/4"	7/8"	11"	9
1"	1-1/8"	9"	8
1"	1-1/8"	13"	5

CURE TIME

Use the table below to determine minimum cure times based on the temperature of the substrate.

Substrate Temp (°F)	Working Time	Cure Time
110°	12 min	18 hrs
75°	20 min	24 hrs
40°	28 min	72 hrs

INSTALLATION

Surface Preparation: Surface to be bonded must be clean and sound. Remove all loose concrete, dust, dirt, grease, oils, curing compounds, laitance, paints, sealers, bond breakers and other foreign matter by mechanical means. For drilled holes, clean with a cylindrical bristle brush. Use clean, oil-free compressed air to remove all dust and water, blowing out holes from the bottom up. Remove all standing or ponded water prior to installation of EP-GEL FAST.

Mixing: CARTRIDGE: Remove the protective cap from the adhesive cartridge and insert the cartridge into the recommended dispensing tool. Before attaching the mixing nozzle, balance the cartridge by dispensing a small amount of material until both components are flowing evenly. Screw the provided mixing nozzle on to the cartridge (do not modify mixing nozzle). Confirm that internal mixing element is in place prior to dispensing adhesive. Begin squeezing a small amount of material from the mixing nozzle onto a disposable surface until

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the material extruded is a smooth uniform gray color with no streaks. Material with an off color or streaking is not properly mixed and will not set properly or perform as expected. Do not use this part for installation. Once the proper mixture is achieved, discard the material that was initially extruded from the nozzle per federal, state, and local regulations, then begin installation. **BULK:** Premix each component, then mix equal volumes of Component A and Component B for 3 minutes with a low speed drill (300 rpm), jiffy mixer, or paddle. Mix only what can be used during the pot life.

Placement: STRUCTURAL ADHESIVE: For use as a structural adhesive, apply the material neat and work into substrate. The glue line should not exceed 1/8 in. **CHEMICAL ANCHOR:** When used as a chemical anchor, the annular space around the bolt in the hole should not exceed 1/8 in. Place the mixing nozzle at the bottom of the hole and begin dispensing from bottom to top, using constant and even pressure until the hole is approximately 2/3 full. Be careful not to withdraw the nozzle too quickly, as this may trap unwanted air in the adhesive. Check the anchor element to make sure it is straight, clean, free of oil and dirt, and the necessary embedment depth is marked. Place the anchor element into the back of the hole, rotating the rod slowly (1-2 rotations) prior to reaching bottom to displace epoxy as it is inserted. To produce a mortar for interior patching repairs, mix 1 to 1-1/2 parts by volume of clean, dry, well graded silica sand to one part by volume of mixed epoxy. Place the mortar, working it into the concrete substrate. Each mortar lift should not exceed 1 in. **BONDING & COATING:** When bonding concrete to concrete, use a brush, or roller to apply an even coat of mixed epoxy to both concrete surfaces, making sure to fill all gaps. When bonding fresh concrete to hardened concrete, placement of fresh concrete must be done while epoxy is still tacky. If epoxy hardens prior to concrete placement, epoxy surface will need to be roughened and new epoxy mixed and placed.

*Always establish a uniform non-streak color before use to verify proper mixing. If dispensing is interrupted, recheck the extruded EP-GEL FAST for uniform streak-free color before continuing use. If working time has been exceeded, replace the mixing nozzle and repeat the mixing steps above.

LIMITATIONS

- For professional use only
- Do not thin with solvents
- For anchoring applications, concrete should be a minimum of 21 days old before anchor installation.
- Always test a small amount to ensure that the product is mixed thoroughly and that the material will harden properly before proceeding.
- Per NTSB Safety Recommendations, the use of adhesive anchors is prohibited in sustained overhead load anchoring applications.
- Substrate temperatures should be a minimum of 40°F.
- For applications with constant high temperature (above 120°F), contact an E-Chem representative.
- Do not expose stored product to cold or freezing temperature (below 35°F) for any length of time.
- Consult E-Chem representative when mixing or placing outside of the temperature recommendations listed.

CLEAN UP

EQUIPMENT: Uncured material can be removed with C-Clean100 or approved solvent. Cured material can only be removed mechanically.

MATERIAL: Collect with absorbent material. Flush area with water. Dispose of in accordance with local, state and federal disposal regulations.

CAUTIONS

READ SDS PRIOR TO USING PRODUCT!

- Component A: Irritant
- Component B: Corrosive
- Product is a strong sensitizer. Use of safety goggles and chemical resistant gloves are recommended.
- Use in a well-ventilated area and avoid breathing vapors
- Use of a NIOSH/MSHA organic vapor respirator is recommended if ventilation is inadequate.
- Avoid skin contact
- Do not take internally
- Keep out of reach of children

FIRST AID

EYE CONTACT: Flush immediately with water for at least 15 minutes. Contact physician immediately.

RESPIRATORY CONTACT: Remove person to fresh air.

SKIN CONTACT: Remove any contaminated clothing. Remove epoxy immediately with a dry cloth or paper towel. Solvents should not be used as they carry the irritant into the skin. Wash skin thoroughly with soap and water.

IF INGESTED: Do not induce vomiting. If swallowed give water to drink. Seek medical treatment immediately.

GENERAL: Remove contaminated soaked clothing immediately. In the event of persistent symptoms receive medical treatment.

CURED EPOXY RESINS ARE INNOCUOUS.

WARRANTY

This product is warranted and guaranteed to be of good quality. Manufacturer, as its sole and exclusive liability hereunder, will replace material if proved defective. This warranty and guarantee are expressly in lieu of all others, express or implied, including any implied warranty of merchantability or fitness for a particular purpose and may not be extended by representatives or any persons, written sales information, or drawing in any manner whatsoever. While the manufacturer recommends uses for the product based on tests believed reliable, no warranties, express or implied, or guarantees can be given as to particular methods of use or application, nor can performance be warranted, expressly or impliedly, or guaranteed under special conditions. Distributors, salespersons or company representatives are not authorized to extend or vary any warranties or guarantees beyond those outlined herein, nor may the manufacturer's or seller's limitation of liability be waived or altered in any manner whatsoever.