

Proper Procedures for DOT Anchoring Epoxy/DOT Doweling Adhesive to Achieve Best Results

- 1) Always prepare holes in advance prior to starting a new cartridge. It is recommended to schedule dispensing to consume an entire cartridge per each use with no interruption of epoxy/adhesive flow to maximize nozzle usage and achieve best results. The hole diameter should be a minimum of 1/8" greater than the threaded rod/rebar diameter and no more than 1/2" greater than the threaded rod/rebar diameter. The depth of the hole should be at least 9 times the diameter of the threaded rod/rebar/dowel for optimum surface area contact between the substrate and epoxy/adhesive for best results.
- 2) All surfaces must be sound, clean, and dry prior to epoxy/adhesive application for optimum performance. Unsound or loose substrate must be removed by grinding, sanding, or other mechanical means. All dirt, oil, wax, grease, or other contaminants must be removed with solvent or other means. Smooth surfaces should be roughened with sand paper or a wire brush prior to application. Utilize pressurized air to initially blow out dust and debris from the bottom of the hole and evaporate cleaning solvents. Brush the hole with a nylon brush and repeatedly blow out the hole to ensure that all dust and debris has been removed.
- 3) Warm the cartridge to 75°F to 90°F (24°C to 32°C) prior to use when temperatures are below 65°F for improved dispensability and to avoid blow-by. Wear gloves, safety glasses, and protective clothing when working with the epoxy/adhesive. Insert cartridge into a heavy duty caulking gun or a pneumatic dispenser with an inline air pressure regulator limiting air pressure to a maximum of 90 psi. Make sure the cartridge is properly positioned with the shoulder of the cartridge flush with the top bracket of the caulking gun or pneumatic dispenser. Remove plastic cap and end plug from the tip of the cartridge and dispense a small amount of material into a disposable container until an even flow of both components is achieved. For maximum flow and reduce fatigue, break off the nozzle to the largest diameter that will fit into the hole. Thread nozzle onto the cartridge and ensure that the nozzle and cartridge assembly is secure. Dispense a small amount of mixed epoxy/adhesive into a disposable container until the color is uniform with no streaks.
- 4) Dispense the epoxy/adhesive starting from the bottom of the hole while slowly withdrawing the nozzle. Dispense enough epoxy/adhesive to fill the hole when the threaded rod/rebar/dowel is inserted (typically 1/2 - 5/8 the depth of the hole). Please note that the DOT Anchoring Epoxy and DOT Anchoring Adhesive are not for overhead applications. Immediately remove any excess material overflowing from the hole after inserting the threaded rod/rebar/dowel. Do not use nozzles that contain hardened epoxy/adhesive and switch to using a new mixer nozzle. Ensure that the threaded rod/rebar/dowel is free of dust and all foreign materials. Insert the threaded rod/rebar/dowel turning clockwise to the bottom of the hole. Do not disturb the threaded rod/rebar/dowel until the minimum bolt-up time has been achieved. Allow more time at colder temperatures.