

Installation Guide

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MasterFlow 647 Technical Data Guide



MasterFlow® 647

Liquid epoxy grout for pressure or gravity application

HOW TO APPLY

SURFACE PREPARATION

CONCRETE

1. Concrete surfaces should be clean, sound and as oil- and water-free as possible. Excessively damaged concrete should be removed.
2. When repairing cracks in oil, water or oil-water conditions, the bond strength will be less than for clean, dry surfaces, and will depend upon conditions and methods employed. Field tests should be performed to determine properties for specific applications.

MIXING

1. To preserve product properties, do not mix partial units.
2. Precondition all components to 70–80 °F (21–27 °C) for 24 hours prior to use.
3. Inspect containers prior to opening. Do not use material if containers have been punctured in transportation and storage, or show evidence of leakage.
4. Do not add thinners, solvents or water to product.
5. Pour the hardener (Part B) into a pail of grout resin (Part A) and stir by hand, using a spatula or paint stirring paddle, until well mixed to a uniform gray color.
6. Alternatively, a slow speed drill and mixing paddle may be used, provided that the mixing does not produce a vortex in the material. Excessive mixing will pull air into the product, which may compromise the finished installation.

EQUIPMENT

Masterflow 647 has a volume mixing ratio of 1.5 parts A to 1 part B, and is compatible with plural component equipment. Note that some plural component equipment may create fluctuations in mixing ratio. If using a two-component, side by side injection pump, in which the two components are mixed at the point of discharge, pre-test the mix ratio at the pump hose inlets.

WORKING TIME

Temperature affects the working time and cure time of epoxy grouts. The foundation or concrete being grouted may be cooler than room temperature unless the temperature has been constant for significant periods. Field judgment and professional experience must be used when anticipating working time. Curing time will vary with temperature of the environment, the surfaces being grouted and the temperature of the mixed grout. MasterFlow 647 can be used with an accelerator. Contact Master Builders Solutions Technical Support for additional information.

Working Time

TEMPERATURE, °F (°C)	MINUTES
90 (32)	10–20
75 (24)	20–30
55 (13)	30–40

The above working times assume product has been properly conditioned for cold or hot weather use.

PLACEMENT

PRESSURE GROUTING OF BASE PLATES AT EDGES

This method is used to fill voids under machinery base plates.

1. If the crack or seam at the edge of the base plate is open more than 0.010" (0.25 mm), seal the edge with MasterEmaco ADH 327RS.
2. Drill holes in the exposed edges of the structural member or sole plate.
 - a. If using an injection pump (preferred), install pump manufacturer's preferred ports.
 - b. If using a grease gun, ream out the holes to accommodate 1/8" or 1/4" pipe taps and install grease fittings (zerks).
3. Inject MasterFlow 647 through the fittings/ ports into the void until any water or oil has been flushed out and the grout is discharged from the crack.
4. Remove the grease fittings before the grout has set to bleed off any remaining pressure.
5. If grout is not visible or does not flow out of the open fitting hole, repeat the process.
6. If this process does not result in bonding the steel and in-place grout, it is possible that the steel surface was not adequately prepared for grouting prior to the original grout placement.

PRESSURE GROUTING OF HOLLOW BASE PLATES

1. If sounding reveals the presence of voids between the baseplate and installed machinery grout (polymer or cementitious), use this method to grout the voids.
2. Drill holes for ports or zerk fittings and as vents. Typical tapped hole sizes are 1/8" or 1/4". Locate holes within 12 inches of one another, on center.
3. Start injection at one end of void and pump until grout is discharged from adjacent holes.
 - a. Move to the nearest hole where grout has appeared. Continue to inject grout using the new location. Continue this process until all air is vented and all voids filled.
 - b. Remove ports or fittings and check to assure that no settlement or seepage occurred.
 - c. If settlement or seepage has occurred, repeat previous steps.

CLEANUP

Uncured epoxy may be removed from tools and equipment using soap and water or a citrus degreaser. Cured material must be removed mechanically.

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