



Corporate Offices  
 1818 Miller Parkway  
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**GROUT 900**

**Vinyl Ester Pourable and Dry Pack Grout**

**RECOMMENDED APPLICATIONS**

Equipment such as pumps and motors that are subject to corrosive attack.

**CHEMICAL RESISTANCE**

- Inorganic Acids
- Organic Acids
- Alkaline Solutions
- Oils
- Salt Solutions

**PHYSICAL PROPERTIES**

<b>Grout 900</b>	
Tensile Strength ASTM C-307	2,200-2,500 PSI
Compressive Strength ASTM C-579	13,500-13,900 PSI
Linear Shrinkage ASTM D-2566	.004 in. / in.
Coefficient of Expansion ASTM C-531	10-12 x 10 <sup>-6</sup> in. / in. / °F
Shear Strength to Steel	1,700-1,800 PSI
Bond Strength to Concrete ASTM D-7234	Greater than cohesive strength of concrete

**SPECIFICATIONS**

**Grout 900** shall be a vinyl ester resin based material supplied with hardener and graded silica aggregate as manufactured by Dudick Inc. Installation shall be in accordance with the manufacturer's recommended practices.

**ESTIMATING QUANTITIES AND ORDER BILL OF MATERIAL**

<b>APPROXIMATE SQUARE FEET PER GALLON</b>	
Primer 27	150-200 ft. <sup>2</sup>
S-10	500 ft. <sup>2</sup>
<b>GROUT 900</b>	
1 unit (233 lbs.)	1.6 cu. ft.

\*\*Quantities shown are for estimating purposes only. Actual field usage may vary.

**INSTALLATION INSTRUCTIONS**

**Grout 900** is furnished as a premeasured unit to assure proper field mixing. Forming, transportation and pouring techniques and the tools used, are similar to those employed for normal concrete work. Thus, the grout can be prepared and installed by skilled plant maintenance personnel or by local contractors.

Since it is not possible to anticipate all the various conditions and situations which may occur in the field, the following surface preparation, mixing and installation instructions are provided as general procedures.

**SURFACE PREPARATION**

**Concrete:** New concrete must be cured a minimum of 28 days prior to grouting. Both old and new concrete should be chipped to a depth of a 1/2" to assure the removal of all unsound materials and contaminants such as oil, grease, laitance and form release agents. The concrete must be thoroughly dry before installing the grout. The prepared surface should have a minimum tensile strength of 250 psi per STM D-4541. All concrete substrates must be

checked for moisture prior to produce application using the Plastic Sheet Test, ASTM D-4263.

**Metal:** Metal surfaces such as equipment bases, sole plates, oil pans, braces or leveling feet which the grout will rest on, or be embedded in, must be free of grease, oil, rust and scale. Where maximum adhesion is required, the contact areas should be abrasive-blasted to a white metal finish to achieve a minimum 2.0 mil profile.

Metal surfaces which are not to be bonded to should be masked or waxed with a generous coat of good quality automotive or floor paste wax.

### **APPLICATION SPECIFICATIONS**

Temperature of substrate must be between 50°F and 110° F.

Relative humidity must not exceed 90%.

Substrate temperature must be 5°F above the Dew Point.

### **SITE PREPARATION AND FORMS**

Where pockets are not cast into the foundation, forms must be constructed to contain the grout. These forms should extend 4-6 inches beyond the perimeter of each base or sole plate to relieve stress concentrations. Forms should also be a minimum of 1/2" above the lowest point of the base or sole plate to firmly embed the machine in the cured grout.

Forms may be constructed of wood or metal. They should be coated with a generous amount of automotive or floor paste wax to prevent adhesion to the grout after it has cured. Forms should be leak-proof since the grout will flow. If necessary, they can be sealed with putty or other non-hardening materials.

If the grout is not to be run under the entire base of a machine, a dam can be constructed of hose, heavy rope, insulation material, wet sand, or form stock. If the dam is to be removed after the grout has cured, the material must be heavily waxed as described above.

All concrete and metal surfaces must be primed with Primer 27 prior to grout placement.

### **MIXING**

#### **Each grout unit consists of:**

- (1) pail of resin liquid
  - (1) can of the correct hardener
  - 200 pounds of grout aggregate.
- When mixed, they will result in 1.6 cu. ft. of grout  
\*Dry pack grouts include 300 lbs. of aggregate

**First Batch:** As with normal concrete work, grout mixing and pouring should be a continuous process. When work is interrupted for any period of time (i.e. while moving to a new area, overnight, etc.) this "first batch" procedure must be followed to provide the "wetting out" of the mixer interior and prevent the formation of a dry batch. The "first batch" process should also be followed when beginning a new area to achieve the reduced viscosity required to "wet out" the concrete foundation and achieve self-priming action.

Add the premeasured hardener to the grout liquid and mix well for at least three minutes. Pour the mixed liquid into a concrete mixer (6 cu. ft. or less), turn it on, and allow this first batch to "wet out" the interior surface. Remove approximately 5%(10 lbs.) of aggregate from the amount provided for the first batch only and discard it. Add the remaining aggregate (approximately 190 lbs.) to the catalyzed resin in the concrete mixer, and mix two to three minutes, achieving a uniform consistency.

**Warning:** If the recommended amount of aggregate is not removed prior to mixing the first batch, a dry batch will occur.

**Additional batches:** After the first batch, additional batches should be mixed using the sequence and procedure described above, except that the full amount of the aggregate supplied for each unit will be used.



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**For easy reference, the sequence is:**

- 1) Mix the resin with the hardener for three minutes.
- 2) Pour the mixture into the cement mixer.
- 3) Add the full amount of the aggregate to the mixer while it is running.

**INSTALLATION**

When the grout liquid and aggregate have been thoroughly mixed, the entire batch should be placed within 20-30 minutes to avoid premature set-up. Each single pour should not exceed 2” to 4” in depth.

Once in the forms, the grout will remain workable for up to 2 hours. Although the grout will flow easily, it should be pushed under the equipment to assure complete filling. The freshly poured grout can also be drained with a chain or agitated with a vibrator to remove any air pockets.

The grout surface should be lightly floated or troweled to a smooth finish.

**CURE TIME**

Grout cure time depends on the temperature of the foundation and the equipment base plate. Since these temperatures are likely to be lower than the room temperature, it should be checked with a surface thermometer.

Forms, shims and jacks can be removed and the equipment allowed to rest on the grout after approximately half of the full-cure cycle; equipment should not be placed in service until the grout is fully cured.

As a rule of thumb, allow minimum of two days for the grout to fully cure at a surface temperature of 80°F, or more. Add one day of cure time for each 10°F temperature decrease below 80°F.

Temperature	Cure Time for In-Service Use
80°F	2 Days
70°F	3 Days
60°F	4 Days

**CLEANING**

Thoroughly clean the cement mixer, wheelbarrows, buckets and other tools and equipment with xylene, MEK, or **S-10 Cleaning Solvent**.

Accidental spills and splashes can be cleaned up by using these same materials.

**SHIPPING**

Refer to Material Safety Data Sheets.

**STORAGE**

**Warning:** All Dudick products classified by DOT with either white, yellow or red labels, must not be mixed or stored together as an explosive reaction may occur.

All grout components should be stored in a cool, dry area away from open flames, sparks or other hazards. When stored in their original unopened containers, **Primer 27** and **Grout 900** have a three-month shelf life. Exposure to excessive heat may cause premature gelling and may reduce available working time (pot life).

## SAFETY

**M.S.D.S: Material Safety Data Sheets must always be read before using products. Grout 900** is intended for application by experienced professional personnel. Dudick Inc. can supply supervision to help determine that the surface has been properly prepared, the ingredients correctly mixed, and the materials properly and safely applied.

If **Grout 900** is to be applied by your own personnel or by a third party contractor, please be sure that they are aware of the following safety precautions:

- Exposure to resins and hardeners through direct skin contact and/or inhalation may cause severe dermatitis reactions in some people. Cleanliness of the skin and clothing is critical and must be of paramount concern.
- Fumes are flammable and heavier than air. Proper ventilation should be maintained to minimize breathing of concentrated fumes.
- Suitable respirators should be used during application.
- Safety glasses, gloves, and suitable protective clothing must be worn at all times during application.
- If contact with hardeners occurs, remove any clothing involved and flush the skin with flowing water. Discard the clothing. Do not attempt to wash and reuse it. **Grout 900** liquids can be removed with S-10 Cleaning Solvent, MEK, or lacquer thinner. **DO NOT USE ACETONE.**
- Keep open flames and sparks away from the area where materials are being mixed and applied.
- If a rash occurs, remove the individual from the work area and seek a physician's care for dermatitis.
- In case of eye contact, flush with water for at least 15 minutes and consult a physician.

- If swallowed, do not induce vomiting; call a physician immediately.

**NOTE:** Dudick, Inc. ("Dudick") warrants all goods of its manufacture to be as represented in its catalogs and that the manufacture of its products by its employees or sub-contractors shall be performed in a workmanlike manner. Dudick's sole obligation under this warranty shall be to replace any material which its examination shall disclose to be defective. Dudick makes no warranty concerning the suitability of its product for application to any surface, it being understood that the goods have been selected and the application ordered by the Purchaser. DUDICK, INC. MAKES NO WARRANTY, EXPRESS OR IMPLIED, THAT THE GOODS SHALL BE MERCHANTABLE OR THAT THE GOODS ARE FIT FOR ANY PARTICULAR PURPOSE. THE WARRANTY OF REPAIR OR REPLACEMENT SET FORTH HEREIN IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES ARISING BY LAW OR OTHERWISE; AND DUDICK INC. SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, DOWN TIME, DAMAGES TO PROPERTY OF THE PURCHASER OR OTHER PERSONS, OR DAMAGES FOR WHICH THE PURCHASER MAY BE LIABLE TO OTHER PERSONS, WHETHER OR NOT OCCASIONED BY DUDICK'S NEGLIGENCE. This warranty shall not be extended, altered or varied except by written instrument signed by Dudick and Purchaser.

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