



Corporate Offices
 1818 Miller Parkway
 Streetsboro, OH 44241
 330-562-1970
 330-562-7638 FAX
 www.dudick.com

POLYMER QUARTZ

CONCRETE REPAIR GROUT MATERIAL

RECOMMENDED APPLICATIONS

- | | |
|----------------------------------|------------------|
| Hydraulic Presses | Printing Presses |
| Blowers | Lathes |
| Gas, Diesel and
Steam Engines | Forges |
| Refrigeration Units | Milling Machines |
| Paper Mill Machinery | Turbines |
| Pumps | Generators |
| Compressors | Crushers |
| Bridge Seats | Rolling Mills |
| Building Columns | Stamping Presses |

CHEMICAL RESISTANCE

Dudick Grout formulation provides a broad range of resistance to acidic and caustic chemicals, including organic and inorganic substances, oils and salts.

PHYSICAL PROPERTIES

Tensile Strength ASTM C-307	2,400 PSI
Compressive Strength ASTM C-579	11,000 PSI
Linear Shrinkage ASTM D-2566	.001 in. / in.
Coefficient of Expansion ASTM C-531	12-15 x 10 ⁻⁶ in. / in. / °F
Shear Strength to Steel	2,220 PSI
Bond Strength to Concrete ASTM D-7234	Greater than cohesive strength of concrete

SPECIFICATIONS

Grout shall be epoxy based material supplied with an appropriate 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

Polymer Quartz is available in .5 or 1.6 cubic foot units

Polymer Quartz Units	.5 cu. ft. or 1.6 cu. ft.
S-10 Cleaning Solvent	500 ft. ² . / gallon

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

APPLICATION INSTRUCTIONS

INSTALLATION INSTRUCTIONS

Dudick Polymer Quartz is furnished as premeasured units 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 grouts can be prepared and installed by skilled plant maintenance personnel or by local contractors.

Dudick can provide supervision, under contract, for the installation of Grouts, and both our field and factory representatives will answer any questions from prospective users or on-site installers.

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: Concrete must be prepared mechanically to remove surface laitance. Oils, grease and other contaminant must be removed prior to surface preparation. Concrete must be free of curing compounds and form release agents. Surface texture should be similar to 40-60 grit sandpaper or the visual standard, CSP-5 from the International Concrete Repair Institute **with exposed pea gravel**. The prepared surface should have a nominal tensile strength of 250 PSI per ASTM D-4541.

Primer 67: The prepared concrete surface must be primed to provide the “wetting out” required for good bonding. **Polymer Quartz** can be applied while the primer is tacky. Do not allow primer to puddle.

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.

All concrete substrates must be checked for moisture prior to product application using the Plastic Sheet Test, ASTM D-4263.

MIXING

.5 cubic foot unit consists of:

- (1) pail of resin liquid
 - (1) can of the correct hardener
 - 1 bag of grout aggregate. *
- When mixed, they will result in .5 cu. ft. of grout

1.6 cubic foot unit consists of:

- (1) pail of resin liquid
 - (1) can of the correct hardener
 - 4 bags of grout aggregate. *
- When mixed, they will result in 1.6 cu. ft. of grout

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 to the catalyzed resin in the concrete mixer, and mix two to three minutes, achieving a uniform consistency.

* When used as a leveling compound some aggregate may be left out to make a “wetter” batch that is semi-self leveling.

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.

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.



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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.

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 properly stored, the shelf stability of **Polymer Quartz** is six months. 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. Grouting systems are 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 Grouting materials are 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 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.

12/19/14