



L&M
Construction Chemicals

DURAGROUT™

DS-176.8-0715

A product brand of LATICRETE International, Inc.



1. PRODUCT NAME

DURAGROUT™

2. MANUFACTURER

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3. PRODUCT DESCRIPTION

DURAGROUT is a ready-mixed, non-shrink, non-metallic, flowable, high-strength structural grout. DURAGROUT contains a balanced blend of washed and graded silica sands, portland cement, flow improving compounds, and a shrinkage compensating system which produces a volume stable structural grout.

DURAGROUT produces high early and ultimate strengths without intermediate or latent shrinkage. DURAGROUT remains stable without failure from compressive loading, impact, lateral thrusts, high heat or continuous vibration. It is scientifically proportioned and is ready for use at varied consistencies from plastic to fluid.

Uses

DURAGROUT is used where non-shrink, high-strength, structural, durable grout is required such as: precise machine bases, pump and equipment bases, structural columns, machine tools, compressors, and anchor bolts.

Advantages

- Long-work time, easy placement
- High strength
- Can be mixed at a varying range of consistencies
- Dynamic load stability

Suitable Substrates

- Existing concrete

Packaging

50 lb (22.7 kg) bag

Approximate Coverage

One bag yields approximately 0.4 ft³ (12.5 L).

Shelf Life

DURAGROUT bags are to be kept in dry storage to prevent water contamination. Shelf life is one (1) year in unopened bags when properly stored.

Limitations

- Do not mix more DURAGROUT than can be placed in 30 minutes
- Avoid DURAGROUT placement when temperatures are, or will be, below 40°F (5°C) within 24 hours
- Do not over-vibrate fluid consistency grout
- Follow ACI recommended practices
- Refer to the L&M Guide to Precision Structural Grouts
- Do not add plasticizer accelerators or additional cement to DURAGROUT.
- For Professional Use only

Cautions

- Consult SDS for more safety information
- Protect finished work until fully cured
- Contains portland cement and silica sand. May irritate eyes and skin. Avoid contact with eyes or prolonged contact with skin. In case of contact, flush thoroughly with water.
- Do not take internally. Silica sand may cause cancer or serious lung problems. Avoid breathing dust. Wear a respirator in dusty areas.
- Keep out of reach of children

Mock-ups and field test areas are required in order to validate performance and appearance related characteristics (including but not limited to color, inherent surface variations, wear, anti-dusting, abrasion resistance, chemical resistance, stain resistance, coefficient of friction, etc.) to ensure system performance as specified for the intended use, and to determine approval of the decorative flooring system.

4. TECHNICAL DATA

Applicable Standard

Meets all requirements of: ASTM C1107/CRD C621

Physical and Working Properties

Approximate Water Requirements per 50 lb. bag			
Plastic	3.5 qts (3.2 L)		
Fluid	4.5 qts (4.3 L)		
Typical Volume Change: ASTM C1090			
	3 Days	28 Days	
Fluid	+ 0.02%	+0.03%	
Split Tensile Strength			
ASTM C496 @ 28 days		590 psi (4.1 MPa)	
Typical Compressive Strength: psi (MPa) ASTM C1107 and CRD C621			
	1 Day	7 Days	28 Days
Plastic	4000 psi (27.6 MPa)	8000 psi (55.2 MPa)	10000 psi (69 MPa)
Flowable	2300 psi (15.9 MPa)	7000 psi (48.3 MPa)	8300 psi (57.2 MPa)
Fluid	1400 psi (9.7 MPa)	5000 psi (34.5 MPa)	6500 psi (44.8 MPa)

Initial Setting Time: Approximately 5 hours

Specifications are subject to change without notification. Technical data shown in product data sheets are typical but reflect laboratory test procedures conducted in laboratory conditions. Actual field performance and test results will depend on installation methods and site conditions. Field test results will vary due to critical job site factors. All recommendations, statements and technical data contained in this data sheet are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty or guaranty of any kind. Satisfactory results depend upon many factors beyond the control of LATICRETE International, Inc. User shall rely on their own information and tests to determine suitability of the product for the intended use and user assumes all risk, loss, damage, expense and liability resulting from their direct use, indirect use or consequential to their use of the product. LATICRETE shall not be liable to the buyer or any third party for any injury, loss or damage directly or indirectly resulting from use or inability to use the product.

5. INSTALLATION

Surface preparation: Clean surface of oil, grease, dirt, laitance and loose material, down to sound concrete. Metal surfaces are to be free of rust or other foreign material. Clean bolt holes, bolts and the underside of bed plates. After roughening the concrete surfaces, saturate the surfaces and bolt holes with water for 24 hours prior to grouting.

Forming: Construct a rigid, watertight form around the bearing plate or object to be grouted. Form elevation should be approximately one vertical inch higher than the highest point to be grouted. On large pours a form sloped at a 45° angle or "head box" should be employed to facilitate placement. Side and end forms should be positioned at least 1" (25 mm) from the bearing plate or equipment base. Placement side form should be at least 2" (50 mm) from the object to be grouted. Do not place grout in large, unsupported open areas.

Mixing instructions

Fluid to Plastic: Locate the mixing equipment (a paddle-type mortar mixer) as close to the area to be grouted as possible. Prior to mixing the first batch of grout, wash out the mixer and determine the number of bags to be mixed at one time. Mix only the amount of grout that can be placed in 30 minutes. For **fluid consistency**, use 4.5 qts (4.2 L). Place into the mixer about 3/4 of the required water. Mix the grout to a doughy state, being careful not to overload the mixer to the point of stalling. After all lumps have disappeared, add remaining water. Continue to mix for a total of 3 to 5 minutes or to uniform consistency. For **plastic consistency**, use 3.5 qts (3.3 L). Add the total amount of water at the beginning of the mixing cycle. Continue to mix for a total of 3 to 5 minutes or to uniform consistency.

Extending DURAGROUT™ with pea gravel: Choose a clean (free of organic material), well-graded, 3/8" (10 mm) aggregate. Soak with clean water. Drain off excess water prior to mixing. First mix DURAGROUT™ to desired consistency, then add no more than 25 lbs (11.3 kg) of 3/8" (10 mm) aggregate for every 50 lb (22.7 kg) bag of DURAGROUT to the batch. Continue to mix until the aggregate is thoroughly dispersed throughout the batch.

Placing: Just before grouting remove all ponded water from the surface of the concrete substrate leaving only a damp surface. Whenever possible, place grout in bolt holes first. Grout should be placed from one direction only in order to reduce the amount of voids under the plate. Grout should be placed without stopping until the forms are overflowing and entrapped air can no longer be seen in the grout as it flows from under the plate and over the forms. DURAGROUT, when mixed to a fluid or flowable consistency, can be placed by either pumping or gravity flowing. If the pumping method is to be used, the discharge end of the pump hose should be placed at the most distant point to be grouted. The pump hose should be withdrawn as the grouting process continues. If the gravity flowing method is used, a slanted form at a 45° angle to the horizontal, or a funnel, should be mounted at the point at which the grout is introduced into the form. The height of the slanted form (or funnel) should be approximately 6-8" (150-200 mm) higher than the highest point to be grouted. The grout should be poured across the slant form, or through the funnel, until the grout has completely filled the formed area and is overflowing the forms. If DURAGROUT is plastic, use rods, chains or tamping to compact grout and to remove voids if necessary.

Curing instructions: Exposed DURAGROUT must be protected and cured immediately after placement. Cover with clear plastic, damp clean rags or burlap for a period of 72 hours. Do not let the rags or burlap dry out during the curing period. After the initial 72 hour curing period, and after the forms have been removed, an ASTM C309 compliant L&M curing compound (e.g. L&M CURE R™) should be applied to all exposed areas for a long term cure.

6. AVAILABILITY AND COST

Availability

L&M™ and LATICRETE® materials are available worldwide.

For Distributor Information, Call:

Toll Free: 1.800.243.4788

Telephone: +1.203.393.0010

For on-line distributor information, visit LATICRETE at

www.lmcc.com.

Cost

Contact a LATICRETE Distributor in your area.

7. WARRANTY

See 10. FILING SYSTEM:

DS 230.13: LATICRETE Product Warranty

8. MAINTENANCE

Non-finish LATICRETE and LATAPOXY® installation materials require no maintenance but installation performance and durability may depend on properly maintaining products supplied by other manufacturers.

9. TECHNICAL SERVICES

Technical Assistance

Information is available by calling the LATICRETE Technical Service Hotline:

Toll Free: 1.800.243.4788, ext. 235
Telephone: +1.203.393.0010, ext. 235
Fax: +1.203.393.1948

Technical and Safety Literature

To acquire technical and safety literature, please visit our website at www.laticrete.com.

10. FILING SYSTEM

Additional product information is available on our website at www.laticrete.com. The following is a list of related documents:

DS 230.13: LATICRETE Product Warranty