

**NON-SHRINK
NON-METALLIC
HIGH STRENGTH**

**LYONS PREMIUM
NON-SHRINK GROUT**

**POURABLE/PUMPABLE
CAN BE MIXED FROM FLUID TO DRY PACK**

PRODUCT DESCRIPTION

LYONS PREMIUM NON-SHRINK GROUT is a ready-to-use, non-shrink, non-metallic, non-corrosive grout. It attains a High Strength 11,000 psi, and utilizes expansive cement technology to create net positive expansion as it hydrates. **LYONS PREMIUM NON-SHRINK GROUT** does not contain added chlorides, ferrous materials, gypsum or gas forming agents. Therefore, it can be placed in exterior or wet environments without worry of significant degradation or rusting.

LYONS PREMIUM NON-SHRINK GROUT can be mixed to plastic or flowable/self-leveling consistencies. It can also be used in a Dry Pack application.

PRODUCT APPLICATIONS

Typical uses for **LYONS PREMIUM NON-SHRINK GROUT** include grouting under machinery base plates, structural steel to concrete, column baseplates, and general purpose concrete grouting. It can also be used for installation of anchors or dowels.

PRODUCT FEATURES

- Non-Shrink
- High Early Strength
- Can Be Mixed Flowable and Will Self-Level
- Can Be Used As A Dry Pack Grout
- No Metallics, Will Not Stain or Rust
- No Chlorides or Corrosive Chemicals

PRODUCT SPECIFICATIONS

- Meets ASTM C 1107-07
2007 version of this specification requires testing at highest recommended water ratio (4 quarts to 50 lbs.) at Min. (45°) and Max. (80°) Installation Temperatures. We also included normal Lab Test Temperature (70°) for reference.

PRODUCT TEST RESULTS

- **ASTM C 109 COMPRESSIVE STRENGTH**
- Flowable Water Ratio (4 quarts to 50 lbs.)

	1 Day	3 Days	7 Days	28 Days
45°	3000 psi	5100 psi	6500 psi	7650 psi
70°	3500 psi	5700 psi	6800 psi	7750 psi
80°	3600 psi	6200 psi	7100 psi	7550 psi
- Dry Pack Water Ratio (3.5 quarts to 50 lbs.)

	1 Day	3 Days	14 Days	28 Days
70°(Lab)	5600 psi	9200 psi	11100 psi	12000 psi
- **ASTM C 827 Early Age Height Change (%)**
- Flowable Water Ratio (4 quarts to 50 lbs.)

	45°	70°	80°
	0.0	0.0	0.3
- **ASTM C 1090 Height Change of Hardened Grout (%)**
- Flowable Water Ratio (4 quarts to 50 lbs.)

	1 Day	3 Days	14 Days	28 Days
45°	0.04	0.04	0.04	0.04
70°	0.04	0.04	0.04	0.04
80°	0.07	0.07	0.07	0.07

SURFACE PREPARATION

All surfaces must be clean and free of oil, dirt and loose material. Surfaces should be roughened to ensure a good bond. Concrete surfaces should be maintained wet for 12 hours prior to installation. Air pockets should have air release holes to allow grout to fill entire pocket. Metal surfaces to come in contact with grout should be clean and free of rust. Coating these metal surfaces to avoid contact with the alkaline grout is recommended.

MIXING INSTRUCTIONS

Mix **LYONS PREMIUM NON-SHRINK GROUT** with a mechanical mixer to ensure complete mixing. Mortar mixer preferred, but drill and bucket is fine for small jobs. **DO NOT** mix by hand. Add water to meet desired consistency.

Consistency	Estimated Water
Dry Pack	3.5 quarts per 50 lb. bag
Plastic	3.75 quarts per 50 lb. bag
Flowable	4.0 quarts per 50 lb. bag

Always add water first, then slowly add powder. **DO NOT** overwater as this will reduce strength and can cause material separation. In warm weather situations, cold water can be used to slow down set reaction. In cold weather situations, warm water can be used to speed up set reaction. Mix for approximately 5 minutes to ensure complete mixing and place quickly.

EXTENSION

In areas over two inches, clean, washed, and dry 3/8" pea gravel can be used to extend product with up to 25 lbs. of gravel per 50 lb. bag. This will yield approximately .70 cu. ft. per 50 lb. bag.

INSTALLATION

As **LYONS PREMIUM NON-SHRINK GROUT** is a fast setting product, mixed materials must be placed quickly. To avoid cold joints, continuous placement must be maintained. Cold joints can affect grout performance under load. Grout that has become unworkable should be discarded. Ensure grout fills void completely and no air pockets remain. Grout should be placed from one side, leaving a horizontal gap of 2" and providing an angle in the

CONTAINS PORTLAND CEMENT. Avoid eye contact or prolonged contact with skin. Wash thoroughly after handling. In case of eye contact, flush with plenty of water for at least 15 minutes. Consult a physician immediately. Keep out of reach of children.

CONTAINS SILICA SAND AND FREE SILICA. Do not breathe dust. Avoid inhalation by wearing respirator. Continuous exposure and inhalation may cause silicosis and crystalline silica is classified as a known human carcinogen.

LIMITED WARRANTY

Lyons Manufacturing, Inc. warrants the high quality of its products. However, because of many factors beyond our control in their use, such as job conditions, workmanship, etc., the liability of all parties making and selling this product is expressly limited to the refund of the purchase price or replacement of the Lyons material used. Lyons Manufacturing, Inc. will replace any product proven to have a manufacturing defect, FOB Factory, provided Lyons Manufacturing, Inc. is notified of such defect within one (1) year from the date of shipment from the factory. This warranty is in lieu of all other warranties, express or implied. Lyons Manufacturing, Inc. makes no warranty of suitability of its products for any particular application and sells its products upon the condition that customer shall conduct their own test to determine the suitability of the product for their purposes. Under no circumstances will Lyons Manufacturing, Inc. be liable for economic, special, incidental or consequential damages or losses of any kind.

form to allow grout to flow freely under base plate. Also leave a gap of 1" on the other sides for air release. This will ensure proper grout pressure to fill areas. Prefill bolt holes if possible. Forms should be 1" higher than base plate. **DO NOT** vibrate grout.

Pumps can be used for handling large areas or difficult areas to fill. Contact factory for details on pump usage.

CURING

Proper curing procedures must be followed. Immediately after installation, wet cure the grout by covering with clean damp rags. Cover all exposed areas of grout. Once forms are stripped or wet rags removed, use a curing compound to complete curing process.

PRECAUTIONS

Employ proper procedures for cold weather or hot weather grouting as dictated by weather. Store materials in a dry place. Rate of strength gain is significantly affected by temperature extremes.

- **DO NOT** allow to freeze until 4000 psi is reached.
- **DO NOT** add any admixture or fluidifiers.
- **DO NOT** overwater or retemper.
- Proper curing is required.

YIELD

LYONS PREMIUM NON-SHRINK GROUT yields approximately .48 cu. ft. per 50 lb. bag.

PACKAGING

LYONS PREMIUM NON-SHRINK GROUT is packaged in 50 lb. moisture resistant bags, usually 60 per pallet. It can also be specially requested in 50 lb. pails.

JOBSITE TESTING

If strength tests are required to be made at jobsite, utilize 2" cubes as per ASTM C 109 rather than cylinders. The consistency of the grout should be matched rather than the specific water ratio.

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04/09