

## SAKRETE NON-SHRINK GROUT

SAKRETE Non-Shrink Grout is a pre-packaged, general purpose, pumpable, cementitious grout. This product is a cement-based, non-metallic, non-shrink grout. It contains Portland cement, silica fume, along with well-graded, natural, fine aggregate and other carefully selected components. It meets the ASTM C 1107 Standard and can be used at varying consistencies from dry pack to flowable.

#### **FEATURES & BENEFITS**

- Can be mixed and placed at dry pack, plastic and fluid consistencies using relatively low water:cement ratios
- Excellent pumpability
- Achieves hardened properties in a wide range of temperature conditions
- Non-corrosive, non-chloride, non-metallic
- Excellent resistance to freeze-thaw cycling and saltscaling
- All KING products are manufactured using ISO 9001:2008 Certified Processes

### **USES**

- · Grout machinery base plates and column sole plates
- · Grout anchor bolts, dowels and hand rails
- Repair precast units
- · Infill pipes and sleeves
- Not recommended for areas of extremely high vibration
- Grout should be protected from freezing until after final set
- Surface temperature of the grouted area should be between 5 °C (40 °F) and 30 °C (86 °F)
- Contact KING Technical Support Staff for recommendations or information on uses or conditions not listed

## **PROCEDURES**

**Surface Preparation:** All surfaces to be in contact with SAKRETE Non-Shrink Grout must be free from dust, oil, grease or any other foreign substances that may interfere with the bond of the material. Remove all delaminated or unsound concrete providing a roughened surface. Clean the area to be repaired with potable water, leaving the concrete saturated but free of standing water (SSD).

Water Proportioning for Grout Consistency: The following amounts of water will produce the following grout consistencies:

**Dry Pack:** Approx. 3.2 L (0.85 US gallon) of water **Plastic:** Approx. 4.2 L (1.1 US gallons) of water **Flowable:** Approx. 4.6 L (1.2 US gallons) of water

NOTE: Water requirement varies with temperature. Increase water slightly as temperature rises and decrease water slightly as temperature decreases.

**Mixing:** Place 75% of required potable water into mixer and slowly introduce entire bag of SAKRETE Non-Shrink Grout. Add balance of required water slowly while mixer is running, not exceeding maximum recommended volume of water. Continue mixing for a minimum of 3 minutes and stop only when materialhas obtained a consistent homogeneous mix. Allow 5 minutes mixing time if using a spiral blade drill mixer. Keep grout mix well agitated until placed.

# Placing:

**Dry Pack:** Firmly press or ram SAKRETE Non-Shrink Grout into place using metal or hardwood tamping tools, and a mason's trowel. Grout consistency when pressed into a firm ball should display no cracking or excessive surface moisture.

**Plastic:** Rod into place or trowel into areas where material can not flow into place. Grout consistency should be similar to that of a masonry mortar (between 100–115% flow, ASTM C 1437).

**Flowable:** This grout may be poured or pumped into place. Pour continuously with adequate head pressure or pump into place ensuring that all voids are completely filled. Formwork joints should be caulked with suitable material. Adequately vent high points to allow entrapped air to escape.

#### **CURING**

Curing is essential to optimize physical properties of the concrete and minimize plastic shrinkage. SAKRETE Non-Shrink Grout should be cured immediately after material has reached initial set or immediately after forms are removed in accordance with ACI 308 "Guide to Curing Concrete". Continuously moist cure for a minimum period of 7 days. Alternatively, moist cure for a minimum period of 24 hours and apply a curing compound that complies with ASTM C 309. Curing is particularly critical in rapid moisture loss conditions such as high temperatures, high winds and low humidity.

#### **TECHNICAL DATA**

The following data is representative of typical values achievable under laboratory conditions. Results in the field may vary.



# SAKRETE NON-SHRINK GROUT

DRY PACK PLASTIC FLOWABLE

**MIXING RATIO PER 25 KG (55 LB)** 

3.2 L 4.2 L 4.6 L

(0.85 US gallon) (1.1 US gallons) (1.2 US gallons)

**WORKING TIME** 

30 minutes 60 minutes 60 minutes

**FLOW TABLE** 

**ASTM C 1437** 110% > 150%

**SET TIME** 

**ASTM C 191 (METHOD A)** 

Initial Set 4.0 hours 5.0 hours Final Set 5.5 hours 6.5 hours

COMPRESSIVE STRENGTH

**ASTM C 109** 

 1 Day
 25 MPa
 21 MPa
 14 MPa

 (3625 psi)
 (3050 psi)
 (2025 psi)

 7 Day
 50 MPa
 45 MPa
 43 MPa

 (7250 psi)
 (6525 psi)
 (6225 psi)

**28 Day** 65 MPa 62 MPa 55 MPa (9425 psi) (9000 psi) (8000 psi)

**YIELD** 

25 KG (55 lb) 0.0125 m<sup>3</sup> 0.0129 m<sup>3</sup>

 $(0.44 \text{ ft}^3)$   $(0.46 \text{ ft}^3)$ 

PACKAGING UPC

25 KG (55 lb) bag 055226550082

SAKRETE Non-Shrink Grout is normally packaged in 25 KG (55 lb) triple-lined bags and polywrapped on wooden pallets. All KING products can be custom packaged to suit specific job requirements.

# STORAGE AND SHELF LIFE

Material should be stored in a dry, covered area, protected from the elements. Unopened bags have a shelf life of 12 months.

## **SAFETY PROCEDURES**

CAUSES BURNS. Do not swallow. Do not get in eyes. Do not get on skin or clothing. Do not breathe fumes. Handle with care. Keep out of reach of children. Wear safety glasses, protective clothing and dust mask. Use only in a well-ventilated area.

**FIRST AID TREATMENT:** Contains cement, when wet forms a calcium hydroxide solution. If swallowed call a poison control center or doctor immediately. Do not induce vomiting. If in eyes, rinse with water for at least 15 minutes. If on skin, rinse well with water. If on clothes remove clothes. If breathed in, move person to fresh air.

#### **WEBSITE**

For more information and other projects, visit us at <a href="https://www.sakretecanada.com">www.sakretecanada.com</a> or call us at 866-725-7383.

Warranty: This product is designed to meet the performance specifications outlined in this product data sheet. If the product is used in conditions for which it was not intended, or applied in a manner contrary to the written recommendations contained in the product data sheet, the product may not reach such performance specifications. The foregoing is in lieu of any other warranties, representations or conditions, expressed or implied, including, but not limited to, implied warranties or conditions of merchantable quality or fitness for particular purposes, and those arising by statute or otherwise in law or from a course of dealing or usage of trade. [REV.0009\_07/18/19]