

# JURCEM<sup>®</sup>

## SPIRAL GROUT



### 裕昇泵送型无收缩螺旋水泥基砂浆

Pumpable Non-shrink Grout

JURCEM SPIRAL GROUT is a pre-packed and ready to use, high strength, non-shrink, cementitious, pumpable grout consisting of Portland cement, graded silica sand, mineral accelerator and other high performance additives. It is formulated to compensate dry shrinkage in all phases. All additives used are chloride and alkali free.

JURCEM SPIRAL GROUT is designed for a wide range of high strength and free flow applications to concrete structure. The high flow characteristics can achieve penetration and levelling with no bleed and zero shrinkage when placed with proper water to solid ratio.

#### TYPICAL PROPERTIES

Colour	Grey
Binder Phase	Portland Cement
Filler Materials	Graded Silica Sand
Density (wet)	Approx. 2,100 kg/m <sup>3</sup>
Flow consistency, ASTM C939:2002	10 to 30 seconds
Compressive Strength, ASTM C942 : 1999	≥ 70 N/mm <sup>2</sup> @ 7days
Expansion, ASTM C940:1998a	≤ +0.4% @3 days and 28 days
Shrinkage, ASTM C940:1998a	0% at 28 days
Setting Time, ASTM C953:1997	Initial ≥ 1 hour Final ≤ 10 hours
Pot Life	Approx. 20 minutes
Quantity of Water	4.8 to 5.3 litres per 25 kg bag
Yield	Approx. 0.015m <sup>3</sup> per 25 bag for fluid consistency

#### AREAS OF APPLICATION

1. Grouting splicing system for connecting reinforcing bars such as Spiral Connectors
2. Repair of spalling concrete and honeycombs
3. Grouting under stanchion plates, machine base plates, bridge bearings and crane rails
4. Filling of voids between column to column
5. Grouting of post-tensioned structural sections
6. Filling ducts in post-tensioned and prestressed structures
7. Underpinning of structures
8. Grouting of anchor bolt and bars
9. Rail / Post to slabs

#### APPLICATION METHOD

##### Surface Preparation

Remove all deteriorated concrete, dirt, oil, grease and other bond inhibiting materials from surface. Reinforcement bar should be blasted to bare metal and treated with rust protectant.

Flood the grouting zone with clean water, blow out stagnant water including those trapped in pockets or boltholes. Substrate should be saturated-surface dry and free of surplus water prior to application.

All formworks encasing grouting zone must be sturdily constructed and to allow for sufficient hydrostatic points.

All edges and joints must be sealed to watertight. In pressure grouting, the installation of input /stop-valve must be firm and strategically positioned.

#### Mixing

For optimum result, drum type mechanical mixer is recommended. Measure out 4.8 to 5.3 litres of water and pour into the mixer. Slowly add 25 kg of JURCEM SPIRAL GROUT and mix continuously for at least 4 minutes, until a homogeneous lump free mixture is obtained.

For small patches, use bucket of appropriate size and an electrical hand held drill mixer and mix in low speed for at least 3 minutes until a smooth lump-free mixture is obtained. Avoid entrapping air during mixing.

#### Placing

For gravity fed applications, place the mixed grout from one side or corner in one continuous pour.

When grouting large areas, pour from the middle through a pipe or funnel.

For machine base installations, fill the anchor bolt pockets initially, followed by the underside of the machine.

For pressure grouting, hand-grout pump or electrical pump can be utilised, depending on the volume and size of the grouting area.

For vertical application, follow standard pump-application method closely. Make sure that there are enough in-let ports for progressive filling.

Once the pressure has been reached at the final in-let port, close the stop-valve and release the pressure gauge.

#### Curing

Allow seven days for curing, before striking off the formworks.

Open areas must be protected against evaporation by using JURCEM ACRYCURE WB curing compound, a polyethylene sheet of damp burlap. Protect newly applied mortar from rain.

#### Cleaning

Clean tools with water immediately after use. Cured materials can only be removed mechanically.

#### PACKAGING

25 kg bag

#### SHELF LIFE

12 months if stored in original sealed packaging under dry and cool condition.

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### SAFETY PRECAUTIONS

JURCEM SPIRAL GROUT is non-hazardous, but due to the cementitious nature, it is advisable to wear a filter mask and protective clothing. In case of eye contact, wash copiously with water and if irritation persists, seek medical treatment.

For more detailed information, please refer to Material Safety Data Sheet.

JCL Building Materials Pte Ltd (JCL) warrants that the product conforms to its chemical and physical description and is within bounds fit for use as stated on its product data sheet when used in compliance with written instructions. JCL makes no other warranty either expressed or implied. The purchaser assumes all risks in handling.

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