

## SG3 FLOWABLE

## GENERAL PURPOSE PRECISION GROUT



### DESCRIPTION:

**JSW Steel Grout SG 3** is a cementitious highly flow-able non shrink high strength grout for precision application like repair RCC Structures, heavy machinery foundations etc.

### FEATURES AND ADVANTAGES:

- Easy to use (just add water on site), ready to use and reduce time for repair
- Contains proper blend of additive and polymers for significantly improved performance
- Long-term high durability
- Non-shrink Grout with controlled positive expansion, prevents shrinkage, cracking and contact area loss
- Good mechanical properties like high compressive strength, flexural and tensile strength
- Excellent early loading for dynamic and static loading conditions
- It is self-compactable
- Easy to grout machine base plates up to 70mm.

### AREA OF APPLICATION:

- Base plate foundations of heavy machinery and equipment foundations, like boiler foundations and turbine generator bearings
- Cavities, gaps, recesses and anchorage
- Bridge-bearing pads and structural columns in precast crane rail construction grouting

### METHOD OF APPLICATION:

#### Surface Preparation:

- The concrete surface should be sound, stable and free from oil, grease and any residual mold release agents or curing compounds
- The metal surfaces should be free from any rust scaling; cleaning can be carried out with suitable methods like by using wire brush, mopping, etc
- The surface has to be dampened with potable water at least 24 hours before starting the grouting application

#### Mixing and Application:

- JSW Steel Grout SG3 should be mixed in a high shear grout mixer for optimum dispersion and workability
- According to grout consistency requirement, the water addition for 25 kg of JSW Steel Grout at  $27 \pm 2^\circ \text{C}$  should be approximately 3.25 to 3.75 liters for flowable consistency
- Ensure the mixing water is below  $25^\circ \text{C}$  (use ice if necessary), especially if the ambient temperature is above  $40^\circ \text{C}$
- Add approximately 85% of measured water to the mixer and then slowly add the powder. Mix for 1-2 minutes and then add remaining water to achieve the desired grout consistency. Do not add more than the maximum recommended water quantity
- Mix for an additional 2-3 minutes until a smooth uniform homogeneous mix is achieved
- Pour the mixed grout via a hopper from one side only to avoid air entrainment. Once the grout reaches the other end and touches the base plate center, stop pouring of grout. Do not disturb the poured grout for at least 24 hours
- Cover the exposed area of grout by wet burlap (Jute Bag) to prevent cracking due to heat generation when curing the grout

#### Curing

- No curing is required for internal area of grouting
- Good curing practice for all exposed surfaces includes
  - Curing using water ponding
  - Spray misting
  - Covering with wet sheeting for a minimum of 7 days

### STANDARD COMPLIANCES

ASTM C 1107/1107M: 20 & CRD-C-621-83

- Typical Uses: JSW Steel Grout SG3 is recommended for precision grouting, application of machine, bed plates, foundation anchor bolts, bridge-bearing pads, precast concrete sections, cavities, gaps, recesses.

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#### COMPRESSIVE STRENGTH, MPa (IS 4031 PART 6)

|        |    |
|--------|----|
| 1 Day  | 20 |
| 3 Day  | 35 |
| 7 Day  | 50 |
| 28 Day | 60 |

#### TECHNICAL DATA:

| PARAMETERS                           | RESULTS             |
|--------------------------------------|---------------------|
| Appearance                           | Free Flowing Powder |
| Color                                | Cementitious Grey   |
| Water/ Powder Ratio                  | 0.13 – 0.15         |
| Flow on Table @ 30°C in mm           | Min. 260 mm         |
| Fresh Wet Density, Kg/m <sup>3</sup> | 2200 – 2400         |
| Initial Setting Time, Minutes        | > 200               |
| Final Setting Time, Minutes          | < 600               |
| Pot Life @ 30°C                      | 45 – 60 minutes     |

#### COVERAGE

- Yield about 11 litre per 25 kg bag
- 60 MPa Grout complying to ASTM C 1107/1107M : 20 & CRD-C-621-83

#### PACK SIZE

- 25 kg Bag

#### BEST BEFORE

- 6 months from the date of manufacturing if stored in unopened original packing, under shaded area in dry and moisture free conditions.

#### SAFETY PRECAUTIONS

- Keep away from children
  - Wear suitable protective clothing, gloves and eyes/face protection
  - After contact with skin, wash immediately with plenty of clean water
  - In case of contact with eyes rinse immediately with plenty of clean water and seek medical advice
- Limited to professional use only. For more details please refer the relevant material safety data sheet, available on request

**Disclaimer** -JSW construction chemical dry mix products are guaranteed against material and manufacturing defects. The product is sold as per standard terms and conditions of sales, copies of which may be obtained on request. JSW's endeavor is to ensure correct and accurate information on product performance and recommended specifications as mentioned in literature, and still may have to abstain from circumstantial deviations which are beyond control due to human intervention, atmospheric conditions or natural calamities which may not be in accordance with any advice, specification, recommendation or information given by it.

MARKETED BY: **JSW Green Cement Pvt. Ltd.**  
Babukhan Millenium Centre, 6-3-1099/1100, No. 702, Block-A, Somajiguda, Hyderabad,  
Telangana, India, Pincode - 500 082.

Email: [info@jswcement.in](mailto:info@jswcement.in) | Website: [www.jswcement.in](http://www.jswcement.in) | Toll free - 18002662661