

SG1 FLOWABLE

HIGH PERFORMANCE & HIGH STRENGTH GROUT



DESCRIPTION

JSW Steel Grout SG1 is a cementitious flowable, non-shrink, high-strength grout for precision application like repair, RCC structures, heavy machinery foundations, etc. JSW Steel Grout SG1 is engineered for precision grouting where it is essential to withstand static and dynamic loads.

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

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

Mixing and Application

- JSW Steel Grout SG1 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 2.75 to 3.25 liters for flowable consistency
- Ensure the mixing water is below 25° (use ice if necessary), especially if the ambient temperature is above 40°
- 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 SG1 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	Minimum 30
3 Day	Minimum 60
7 Day	Minimum 80
28 Day	Minimum 100
Expansion	Nil

TECHNICAL DATA

PARAMETERS	RESULTS
Appearance	Free Flowing Powder
Color	Cementitious Grey
Water/ Powder Ratio	0.11 – 0.13
Flow on Table @ 30°C in mm	Min. 260 mm
Fresh Wet Density, kg/m	2200 – 2400
Initial Setting Time, minutes	> 200
Final Setting Time, minutes	< 600
Pot Life @ 30°C	45 – 60 minutes

COVERAGE

- Yield about 11 liter per 25 kg bag

PACK SIZE

- 25 kg Bag

BEST BEFORE

- 12 months for sealed pack when stored in dry and sheltered area; kept out of direct sunlight, damp-proof conditions and protected from extreme temperatures
- Should be in a dry and unpacked condition

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

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.

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