

## **MASTERGROUT CNS 50M**

**CEMENTITIOUS NON-SHRINK, FREE FLOW GROUT**

### **DESCRIPTION**

**MASTERGROUT CNS 50M** is a specially formulated cementitious grout which has excellent shrinkage resistance and free flowing properties suitable for machine foundations. The high strength properties of the grout ensure a stable and permanent support to the equipment, machines which transfer both static and dynamic loads on to it. Mastergrout CNS 50M is supplied as a ready-to-use dry powder requiring only the addition of clean water as per guideline of water powder ratio. Mastergrout CNS 50M has a unique formulation which does not cause corrosion of machine parts, bolts, etc. in contact with it. Mastergrout CNS 50M is a mixture of cement, fines & additives which imparts controlled expansion in the plastic state as well as reduces the water demand. Reduction in water demand provides high strengths & long term durable grout

### **TYPICAL APPLICATION**

- Machine foundations
- Bearing plates
- Boiler foundations
- Columns in precast constructions
- Concrete anchors,
- Turbines and D. G. sets
- It can be used for filling mivan, tyroid holes and groove filling application
- Mix 3.3 to 3.9 liters of water per 30 kg bag so as to achieve the groove filling consistency
- It can be used in RCC bricks/ Concrete blocks/ Siphorex blocks junctions at travelable consistency. Mix 4.1 to 4.3 liters of water per 30 Kg bag to achieve the required consistency depending on end application, nature of substrate
- The water requirement may be vary be vary depending upon climatic conditions, ease of mixing & nature of grout consistency required for end use.

### **FEATURES / ADVANTAGES**

- It has good pourability and flowability. This free flow nature, guarantees highest contact area with the machine base plate and other load bearing areas.
- It has an excellent non-shrink property. This volume stability ensures permanent contact with the bearing areas.
- Develops high initial and final strengths hence gives excellent support to the equipment that transfers dynamic and static loads on it.
- It is free from harmful chlorides and other aggressive chemicals which attack steel and hence ensures a non-corrosive supporting system.
- It is easy to mix and apply as only water of a definite quantity has to be added at site to the readymade grout.
- The cementitious grout with special additives and graded aggregates are compatible with concrete substrates.
- Pre-packed grout overcomes potential on site batch variations.
- Promotes rapid installations & early operation of plant.

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**TECHNICAL INFORMATION**

| Sr. No. | CHARACTERISTICS   |  |
|---------|---|--|
| 1       | Nature  | Single component powder  |
| 2       | Color   | Grey, Brick red & yellow available on request                    |
| 3       | Fresh weight Density  | 2150 ± 50 Kg/m <sup>3</sup> depending on actual consistency used |
| 4       | Compressive strength in N/ mm <sup>2</sup> , at water powder ratio of 0.150 by weight, water curing at 27°C<br>1 day<br>3 days<br>7 days<br>28 days | 11<br>25<br>35<br>50   |
| 5       | Flexural strength, N/ mm <sup>2</sup>   | 6  |
| 6       | Unrestrained expansion %  | 1 to 4   |
| 7       | Expansion Time after mixing   | Starts after 20 min & stops after approx. 160 minutes at 30°C    |
| 8       | Size of the cubes used  | 70.6 mm x 70.6 mm, IS standard cube                              |

**DIRECTION FOR USE & DOSAGE**

- Clean all surfaces coming in contact with MASTERGROUT CNS 50M, before starting grouting. All kinds of contaminations such as fat, oils, dust and cement slurry must be removed.
- Several hours prior to grouting, the area of the cleaned foundations should be wetted & saturated with fresh water & remove any free water present on the surface before grouting.
- It is essential that the base plate should be thoroughly cleaned & free from oil, grease & any other contaminants.
- Ensure leak proof shuttering, as Mastergrout CNS-50M is a free flowing grout. This can be achieved by using foam rubber strip beneath the constructed formwork & between the joints
- Mix 4.8 liters of water per 30 Kg pack grout for flowable consistency. The water requirement may vary depending upon climatic conditions, ease of mixing & nature of grout consistency required. If necessary, it is advisable to carry out a small trial to access any adjustment necessary in the water demand before commencing to a large scale application.
- Mix mechanically and ensure a homogeneous mix. Use heavy duty slow speed drill fitted with a spiral paddle. Place the grout within 20-25 minutes to gain the full benefit of expansion.
- When grouting thickness is over 100 mm (below base plate) mix 5 mm - 12mm coarse saturated surface dry, low absorption, graded aggregate in CNS 50M (Aggregate content

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- = 50% to 100% by wt. of MASTERGROUT CNS-50M)
- When grouting depth is beyond 100 mm ,mix 5 mm - 12 mm coarse saturated surface dry, low absorption, graded aggregate in CNS50M (Aggregate content = 50% to 100% by wt. of MASTERGROUT CNS-50M
- Exposed surfaces of MASTERGROUT CNS50M should be cured like concrete. In order to avoid premature evaporation of the water, start curing as soon as the grout reaches its touch hard state. Curing upto a minimum of 7 days is must. While grouting with this grout upto approximately 3 hours later, strong vibrations of any kind should be avoided.
- While grouting ensures that no air voids remain, the grout must have maximum contact area.
- Material should be poured on one side only.
- Never add any other ingredients like cement, sand, fiber, admixtures etc. to MASTERGROUT CNS-50M pre-packed system.
- Do not use vibrators, as MASTERGROUT CNS 50M is a free flowing grout which doesn't need any compaction. Never use MASTERGROUT CNS 50M after 30 minutes of mixing.
- Use minimum water to achieve the desired placement consistency of the product.

- **Yield (Consumption)**

The yield of CNS-50M for Trowelable & Flowable consistency for 30 kgs material is as follows

| CONSISTENCY       | YIELD                    |
|-------------------|--------------------------|
| <b>Trowelable</b> | <b>15.6 liter/30 kgs</b> |
| <b>Flowable</b>   | <b>16.4 liter/30 kgs</b> |

### CLEANING OF TOOLS & EQUIPMENTS

Tools and equipment can be cleaned with water. Cured materials can be removed mechanically or with Choksey's Masterklen AEA.

### STORAGE AND SHELF LIFE

- Mastergrout CNS 50M should be stored in cool and dry conditions.
- Shelf life is six months from the date of manufacture, if kept in cool dry area stored in sealed bags.

### PACKING

10 Kg & 30 Kg Bags

### PRECAUTIONS

- It is non toxic, non-flammable
- Use gloves while mixing and pouring Mastergrout CNS 50M.
- Don't use damaged bags of Mastergrout CNS 50M

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### **DISCLAIMER**

The above information and details herein are based on the tests conducted & experience on application and usage. The user is advised to carry out the test and take trials to satisfy on the suitability of the products and meeting his requirement considering the prevailing conditions prior to application / using it on a larger area. As the conditions under which the products are used or transported are beyond our control, we would not hold ourselves responsible on its consequential non performance.