



MAGNICRETE
GERMAN TECHNOLOGY - INDIAN PRIDE



MAGNIGROUT

SUPER STRENGTH GROUT

stronger, quicker, sturdier!



**READY TO USE
JUST ADD WATER**

- High early strength
- Superior compressive strength
- Quick setting, shrinkage free
- Easy to use
- High durability
- Saves time and manpower
- Available in normal & flowable variant

MAGNICRETE FOR MAGNIFICENT BUILDINGS



MAGNICRETE

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HIGH STRENGTH, NON-SHRINK CEMENTITIOUS GROUT

“MAGNICRETE MAGNIGROUT” is General Purpose High Strength Cement based grouting material designed to transfer load effectively, ensuring grouting precision and durability of structure. “MAGNIGROUT” inhibits corrosion of embedded steel and imparts high initial and ultimate flexural and compressive strength.

“MAGNIGROUT” has been carefully developed to optimum performance, even in the toughest applications along with unparalleled ease of application. It provides long life expectancy and maintains the rigid equipment to foundation connections which is necessary to meet demanding installation requirements. “MAGNIGROUT” complies and exceeds the guidelines provided in ASTM C 1107/ C1107M and EN 1504-3 Class R4

Features and Benefits:

- Very high compressive and flexural strength at very short time.
- Longer pot life ensuring negligible wastage.
- Non-shrink grout with controlled positive expansion ensures proper load transfer and durability of structure.
- High fluid consistency and bleed resistance.
- Quickly and easily placed by pouring or pumping.
- Resists chemical attack, oils, petroleum products, solvents, and mild caustic alkalis.
- No added chloride or gypsum.
- Excellent for dynamic and static loading conditions.
- Free of chlorides and additives, that may lead to corrosion.
- High drill resistance property.
- Self-compacting.
- Product variants available in both Flow-able and Normal Trowel-able consistency.

About Magnicrete Products

Products under MAGNICRETE brand are produced in a State-of-the-Art Plant at Rajasthan in India with German Technology. It is one of its kind, most modern Dry Mix Plant of latest technology in the world with a capacity of more than 160K MT per annum.

The plant is fully automatic including the raw material handling system, mixing of various raw materials to the finished products loading system and truck loaders. Fully computerised without any or least manual intervention. The plant is equipped with very high efficiency mixers and choppers for thorough and uniform mixing of ingredients with high precision, even with dosages as low as 0.01%.

The plant operation runs automatically through most advanced Supervisory control and data acquisition (SCADA) System, through PLC in a close loop system of software and hardware elements. This allows to control processes, monitor and process real time data through directly interacting with equipments and devices like sensors, screws, motors etc., which effectively reduces the chances of manual operating errors and enable to produce world class quality Dry Mix products with precision and consistent quality for Magnificent buildings.

The plant is supported by in-house research and development centre of international standard, fully equipped with excellent laboratory facilities including prototype German dry mix plant, for all critical and important quality tests.

It is run and managed by well experienced senior professionals having proven work experience in the industry.

Method of Application

SURFACE PREPARATION

- The substrate should be clean and free from loose particle, dust, grease and foreign material that may affect adhesion.
- Hammer out all loose material on the surface of application.
- Surface must be rough and profiled for developing bond with "MAGNIGROUT". Sanding or high pressure washing can be done to clean the area.
- Grouting area should be in SSD (saturated with water; but surface dry) condition while pouring.

MIXING

- Water Powder Ratio: Water to "MAGNIGROUT" – Normal 16% and Flowable 17%
- Small quantities of grout may be hand-mixed in a concrete mixing pan using triangular trowel or any suitable tool until lump-free homogeneous mass is obtained. For large quantities and continuous pours, mix using a mortar mixer (300 to 600 rpm) or appropriate grout pump.
- It is advisable to use a mechanical mixer for uniform and thorough mixing which saves time, labor and ensures maximum workability.
- More time may be required to mix manually, by using the same percentage of water to prepare the mix.
- "MAGNIGROUT" powder is initially mixed with 80 - 90% of the recommended water ratio for 4 to 5 minutes in mechanical mixer and thereafter remaining 10% of water is to be added. Mix thoroughly for 2-3 minutes to obtain homogeneous mass.
- No extra water should be added to the mix.
- "MAGNIGROUT" mixture should be applied within 30 to 45 minutes of mixing with water.
- Let the grout stand for 5 minutes and re-mix for 2 to 3 minutes to ensure optimum dispersion and lump free paste.

METHOD OF APPLICATION

- Manual/Mechanized method can be used for application.
- Ensure removal of voids within the material applied.
- Clean the excess material immediately, if any and can reuse within one hour.
- In case of addition of aggregates, it is recommended to mix aggregate at the ratio of 1:1 to "MAGNIGROUT"..

PLACEMENT

- The formwork if required, should be of waterproof material and should be placed properly to counter the hydrostatic forces of grout.
- "MAGNIGROUT" is easily placed by pouring or pumping and compaction should be undertaken.
- Place grout on one side, flowing to opposite and adjacent sides, to avoid entrapment of air. When necessary, provide vent holes.
- The prepared grout material can be reused within the pot life. Excess material should be cleaned immediately after the application.
- Ensure that "MAGNIGROUT" remain moist at least for 7 days for attaining desired strength.

METHOD OF APPLICATION WITH AGGREGATES

- The water requirement in case of "MAGNIGROUT" mixed with aggregate will be approximately 8.5 - 11% depending the mixing ratio and the aggregate quality.
- It is very important to saturate the aggregates completely before mixing it to the Grout. This will ensure that the aggregates will not absorb water from the mix which may reduce the workability. This will also ensure the elimination of higher dust content if any around the aggregates which impairs the physical properties of Grout.

PRECAUTIONS

- Mixing of water with grout must be done homogeneously as per recommended water-powder ratio only.
- Do not add extra water to maintain flow or workability after the pot life is over.
- Clean all the tools and tackles and mixer machine after mixing till the grout is not hardened.
- Ideal temperature to grout is 10 - 35°C. Adjust mixing water temperature while grouting "MAGNIGROUT" in extreme cold and hot conditions.
- Open areas should be protected from rain wind and other aggressive climatic conditions for first 24 hours of grouting.
- In case of "MAGNIGROUT" admixed with Aggregates 1:1, not saturated with water, it is very important to do the water correction depending upon the water absorption of the aggregates (it is very important to consider the dust around the aggregates which will also take lot of water while mixing) hence in this it is quite possible that water requirement may rise by 3 - 5% as mentioned for plain grout depending on the water absorption and dust in aggregate.
- Coarse aggregates if added, must be clean, hard, angular and roughly in cubical shape. Flaky and absorbent (more than 5% water absorption in 24 hour immersion) aggregates are not recommended for use as they deteriorate the quality of the finished application.

CLEANING & SAFETY

- Remove excess material on tools and site using clean water and mechanical scrubbing before it hardens and difficult to dislodge.
- "MAGNIGROUT" is non- toxic, however, as with any cementitious material, avoid prolonged contact with skin and dust inhalation.

STORAGE & SHELF LIFE

- Store in a cool and dry place. Ensure that the bags does not burst or tear while handling. There should be a gap of 0.5 m from the walls to the stacks.
- "MAGNIGROUT" will remain usable for a period of six months (6 Months) from date of manufacture when stored as per standard recommended conditions.

Usage

"MAGNIGROUT" can be used for the following:

- All kinds of Grouting work like grouting of precision machinery, precast elements, Steel column pads
- Setting Stanchion /turbine base plates and high strength anchor bolts
- Filling of voids and jacketing applications
- Plugging of holes in concrete, etc.
- It can also be used for general grouting purposes in concrete such as patch repairs, crack filling, honey comb repairs, road repairs, quick fixing of window and door hold fasts, ceramic insulator jointing etc.

TECHNICAL SPECIFICATIONS

Parameter	Unit	Values	
		Normal	Flowable
Bulk density	Kg/L	1.35~1.45	1.30~1.40
Fresh wet density	Kg/ L	2.2~2.3	2.1~2.3
Water demand normal	%	15~16	16~17
Pot life	Minutes	60	60
Flexural Strength @ 28 days	N/mm ²	13~14	15~17
Splitting Tensile Strength @ 28 days	N/mm ²	8.5	8.0-8.5
Linear coefficient of Thermal Expansion	mm/mm/°C	8-9 X 10 ⁻⁶	8-9 X 10 ⁻⁶
Modulus of Elasticity @28 days	GPa	53~55	53~55
Compressive Strength	@ 01 Day	40~45	40~45
	@ 03 Days	55~65	55~65
	@ 07 Days	70~80	70~80
	@ 28 Days	Up to 100	Up to 100
Flexural Strength	@ 01 Day	4~5	3~4
	@ 07 Days	7~8	7~8
	@ 14 Days	9~11	9~10
	@ 28 Days	13~14	13~14
Pull off bond Strength	@ 07 Days	17~18	16~18
	@ 28 Days	22~24	20~24
Tensile Strength	@ 28 Days	N/mm ²	6.5~8.5
Packaging	MAGNIGROUT is available in 40 Kg BOPP laminated packaging.		

MAGNIGROUT Compressive strength mixed with 10mm down aggregate

MAGNIGROUT			
Aggregate (%)	50:50	70:30	
Water Demand (%)	8.5~9.5	9~10	
Compressive Strength N/mm ²	@ 01 Day	34~42	30~38
	@ 03 Days	40~48	36~46
	@ 07 Days	46~58	45~55
	@ 28 Days	>75	>70

Quality of aggregate plays a major role in strength, durability and workability if mixed in the grout. Judicious selection of aggregate is advisable to obtain desired parameters.

*Specifications are subject to change without notification in our pursuit of product improvement. Kindly contact our Technical Personnel for any clarification. Results mentioned in the above table are Typical and under standard conditions stipulated as per the codes. #Temperature: 27°C; Relative Humidity: 65±5°C unless and until mentioned otherwise

OTHER MAGNICRETE PRODUCTS



STORE DRY



DONT USE HOOKS



DONT INHALE USE MASK



USE SAFETY WEAR

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