

PRODUCT

#108 MORTAR/Flow

Flowable, Non-Shrink, Cementitious Grout

#108 MORTAR/Flow is a ready-to-use product in powder form: mixed with water, it provides a flowable, non-shrink, high strength grout, with high bond to steel and concrete. #108 MORTAR/Flow contains no metallic aggregate and is chloride free. #108 MORTAR/Flow is reinforced with special synthetic fibres to improve mechanical characteristics.

USES

- Void filling, anchoring steel structures, machine base plates, under stanchion plates.
- Maintenance works in marine areas and harbours;
- Maintenance works in industries;
- Concrete repair;

SPECIFICATIONS

1. Setting times

Temperature	Water %	Initial	Final
23 °C	14	2 hours	6 hours
40 °C	15	1 hour	4 hours

2. Water requirement to produce #108 MORTAR/Flow

Water for 100 Kg. of #108 MORTAR/Flow

min. max.

14 lt. 15 lt.

3. About 2.000 Kg. of #108 MORTAR/Flow are required for 1 cubic meter of mortar

4. Mechanical performances

Compressive strength	at 1 day	>17	MPa
" "	at 3 days	>30	Mpa
" "	at 7 days	>48	Mpa
" "	at 28 days	>55	MPa
Flexural strength	at 1 day	>5	MPa
" "	at 3 days	>6	Mpa
" "	at 7 days	>8	Mpa
" "	at 28 days	>12	MPa
Modulus of elasticity	at 28 days	>35.000	MPa
Bond to concrete	at 28 days	>1,8	MPa

If required, to fill cavities showing depths in the excess of 5-6 cm, #108 MORTAR/Flow can be loaded up to 20% by weight with 5-6 mm granulometry clean aggregate.



5. Packing

#108 MORTAR/Flow is packed in 25 Kg. moisture-resistant bags, easy to store and handle thanks to their limited weight.

PREPARATION OF SURFACE

Clean surfaces from grease, oil, old paint residues, lime, dirt or dust.

Remove loose concrete or mortar and laitance, by using a chisel or a scarifier and provide rough and sound surfaces. Scarification must be so deep as to allow a mortar layer of at least 10 mm in thickness. This step is very important because #108 MORTAR/Flow needs a rough surface to bind to.

Clean reinforcements from rust and add new reinforcing bars if old reinforcement is no longer sufficient.

WATER SATURATION

Saturate concrete with water before pouring mortar and remove any water in excess with air hose or rags before applying #108 MORTAR/Flow.

PREPARATION OF THE MORTAR

For a correct mixing of #108 MORTAR/Flow, the following procedure is advisable:

- Open the bags of #108 MORTAR/Flow required for the job a short time before mixing is started, pour the minimum amount of mixing water indicated into the mixer. Start the mixer and add #108 MORTAR/Flow quickly and continuously.
- Use only clean potable water.
- Mix the blend 4 to 5 minutes after all #108 MORTAR/Flow has been added, until the mortar is well mixed and without lumps.
- Add water, if necessary (within the quantities indicated), until the required consistency is achieved and mix again for 2 to 3 minutes. The water content can slightly vary from those indicated, depending on ambient temperature and relative humidity. In hot and dry climates, slightly higher quantity of water may be necessary, the contrary in cold and humid climates.

Hand mixing of #108 MORTAR/Flow is not recommended, in order to avoid the use of excessive quantities of water. For small mixes, a drill with helical mixer can be used.

THE INFLUENCE OF TEMPERATURE

#108 MORTAR/Flow can be easily used when ambient temperature during pouring operations is between 5° and 40°C.

However, if ambient temperature is low (5° to 10°C) strength develops slowly. When high early strength is required, the following precautions are recommended:

- a) store the bags of #108 MORTAR/Flow in sheltered ambient;
- b) use hot mixing water (30° to 50°C);
- c) start pouring operation in the morning;
- d) protect the poured #108 MORTAR/Flow against cold weather with watertight coverings. Do not pour if temperature is approaching 0°C.

If ambient temperature is high (> 30°C), loss of workability is the only problem. If such loss



is too high for the intended use, the following measures are recommended:

- a) store the bags of #108 MORTAR/Flow in a cool place;
- b) use cold mixing water or add crushed ice;
- c) prepare the mortar during the coolest period of the day.

After the grout has initially hardened remove any shuttering and keep the grout damp.

CURING

All surfaces covered with #108 MORTAR/Flow exposed to air should be damp cured using wet canvas sheets (jute) soon after completion operation and for subsequent 5-6 days to ensure full cement hydration and to minimise cracking, especially in hot climate.

All information and direction contained in this technical data sheet are given in good faith and are based on the best known practical test.

SINIT when having no control over transport, storage, handling, use and application of its product, will disclaim any responsibilities for any unsatisfactory results obtained.

All tests have been carried out at 23 °C

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These data supersede all previously published data.

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