PRODUCT

108 MORTAR
Thixotropic, Non-Shrink, Sulphate Resisting Mortar

#108 MORTAR is a ready-to-use product in powder form: mixed with water, it provides a thixotropic, rheoplastic, non-segregating, non-shrink, high strength mortar, with high bond to steel and concrete.
#108 MORTAR is an extremely durable waterproofing covering, even in highly aggressive ambient.
#108 MORTAR contains no metallic aggregate and is chloride free.
#108 MORTAR is reinforced with special synthetic fibres to allow higher build-up, (30-35 mm. per layer) on vertical surfaces.

#108 MORTAR is available in two different aggregates size: C for Coarse Aggregates and F for Fine Aggregates.

USES

- Protection of concrete against aggressive water containing sulphates, sulphides, chlorides, etc.;
- Maintenance works in marine areas and harbours;
- Maintenance works in industries;
- Repair of structural members (reinforced or prestressed beams under normal or eccentric stresses).
- Repair of members subject to repeated stresses.

#108 MORTAR F should be preferably used when coat thickness is 10 mm or less.

SPECIFICATIONS

1. Water requirement to produce #108 MORTAR

Suggested consistency	Type of application	Water for 100 Kg. of #108 MORTAR	
		min.	max.
PLASTIC	Trowel	16 lt.	18 lt.
PLASTIC	Spray	16 lt.	18 lt.

2. Performance: 20 kg/sq.m. for each cm. of thickness.

3. Pot Life at 20°C : 1 hour:

4. Setting times at 20°C: Initial: 4 hours Final: 6 hours

5. Mechanical performances: UNI 196/1

Compressive strength	at 1 day	> 20	MPa
" "	at 3 days	> 35	MPa
" "	at 28 days	> 55	MPa
Flexural strength	at 1 day	> 3,8	MPa
" "	at 3 days	> 6,1	MPa
" "	at 28 days	> 11,5	MPa
Bond to concrete	at 28 days	> 2	MPa
Elastic modulus		27.000	MPa

6. Storage Life: 18 months (minimum), if properly stored in the original special bag.

7. Packing
#108 MORTAR 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 or 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 needs a rough surface to bind to.
Clean reinforcements from rust and add new reinforcing bars if old reinforcement is no longer sufficient.
Any water flowing or seeping through the support must be stopped by drainage or by the use of very quick set cement (C1).

REINFORCEMENT POSITIONING

If layer must be thicker than 20-25 mm over large areas, anchor a welded wire reinforcement to the concrete to be treated, leaving some space between the mesh and the surface. The subsequent layer of #108 MORTAR over reinforcement shall be of 10 mm., at least.
If thickness is lower than 20-25 mm or areas are small, no mesh is needed, provided the surface has been made rough with ridges approximately 5 mm deep, in order to provide the needed restraint to the mortar. Minimum thickness should be not less than 10 mm.

WATER SATURATION

After reinforcing bars or mesh are set, saturate the concrete or masonry to be repaired with water for at least 6 hours before pouring mortar. Remove any water with air hose or rags before applying #108 MORTAR.

EPOXY BONDING COAT

No water saturation is required when an epoxy bonding coat is applied.
An epoxy bonding coat (L.A.2 S) is suggested for special cases.

PREPARATION OF THE MORTAR

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

- Open the bags of #108 MORTAR required for the job a short time before mixing is started, pour the minimum amount of mixing water indicated in paragraph 1 into the mixer. Start the mixer and add #108 MORTAR quickly and continuously.
- Mix the blend 3 to 4 minutes after all #108 MORTAR has been added, until the mortar is well mixed and without lumps.
- Add water, if necessary (within the quantities indicated in paragraph 1), until the required consistency is achieved and mix again for 2 to 3 minutes. The water content can slightly vary from those indicated in paragraph 1, 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 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 can be easily used when ambient temperature during pouring operations is between 5° and 35°C.
However, if ambient temperature is very 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 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 against cold weather with watertight coverings. Do not pour if temperature is approaching 0°C.

If ambient temperature is very 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 in a cool place;
b) use cold mixing water or add crushed ice;
c) prepare the mortar during the coolest period of the day.

CURING

All surfaces covered with #108 MORTAR exposed to air should be damp cured using wet canvas sheets (jute) soon after completion operation and for subsequent 48 hours, especially in hot climate. Alternately the use of a curing compounds as a water-extended epoxy sealer, can help in preventing water evaporation.

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.

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These data supersede all previously published data.

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