

## **MAX 2011 SEM PMM**

(Polymer modified mortar)

### **DESCRIPTION:**

**MAX 2011 SEM PMM** is a ready-to-us repair mortar, composed of Cement, properly selected & graded fillers, re-dispersible co-polymers, additives with specially designed polypropylene fibre. It is available in powder to be mixed in a definite quantity of water for application. It is used for repairs of structural members of residential, commercial & industrial buildings. It produces a dense, high strength repair mortar, with excellent bond characteristics to steel reinforcement and concrete. **MAX 2011 SEM PMM** is shrinkage compensated, has low permeability, extremely durable, chloride free and contains no metallic aggregate. It can be trowel applied or spray applied up to thickness of 50 mm in single layer.

### **AREA OF APPLICATION:**

- All kinds of repair for structural members of –Industrial, Commercial & residential buildings.
- Repairs to reinforced or pre-stressed beams or columns.
- Repair of structural members subjected to repetitive loading.
- Repairs of jetties & any other structure in marine environment.

### **FEATURES & BENEFITS:**

- Ease of application – Easy to mix with water and apply manually by trowel.
- Shrinkage - Reduces the risk of cracking due to shrinkage compensation.
- Primer – No primer required.
- Economics – Saves primer cost, easy to apply manually becomes economical.
- Low rebound – No rebound losses hence no wastage of material during machine application.
- Permeability - Extremely low permeability, gives excellent resistance to attack by aggressive environmental elements, making it durable.
- Machine application – Applicable by spray machine increases the speed of application with less labour & energy.

### **METHOD OF APPLICATION:**

#### **1. SUBSTRATE PREPARATION**

- It is essential that the substrate to be repaired is sound, clean and free of all contamination.
- The damaged areas of concrete to be removed should be clearly identified. The perimeter of the area should be saw cut to a depth of 10 mm and the edges cut as neatly as possible keeping the sides squares. Feather edging is not permitted and a minimum thickness of 10 mm must be maintained over the whole repair area.
- If reinforcement is exposed in the repair area, it should be cleaned to remove all the rust particles by mechanical means like metal wire brush or abrasive blasting.
- Protection to the reinforcement steel can be provided by applying **MAX 5004 BAR SEAL** after applying **MAX 2010 RUST-O-CON** rust convertor to the cleaned steel bar uniformly. Severely corroded reinforcement may require replacement and the engineer must be consulted.

#### **2. PRE-WETTING THE SUBSTRATE**

The concrete substrate must be saturated with water till saturated surface dry condition is achieved. Any excess water may be removed by cloth or oil free compressed air.

#### **3. MIXING**

**MAX 2011 SEM PMM** must be mixed mechanically. For this, heavy-duty slow speed drill with spiral mixing paddle or forced action mixer can be used.

Add 3.5 litres of water into the mixer. Start the mixer and add the **MAX 2011 SEM PMM** powder rapidly and continuously. Mix for 3 minutes until mortar is homogeneous and lump free.

Add water, if necessary, to get the desired consistency. Mix for a further 1 to 2 minutes.

Under no circumstances should excess water be added. Little extra water may be required in hot climatic conditions.

If ambient temperature is more than 30°C, use chilled water for mixing and store unused product in shed. For better results maintain the mixed temperature of product at 35°C.

#### 4. APPLICATION

After mixing, **MAX 2011 SEM PMM** can be sprayed or trowel applied.

When applying by hand **MAX 2011 SEM PMM** must be forced tightly into the substrate to ensure complete contact with the pre-wetted substrate. In situations where reinforcement steel is countered, the mixed material should be placed behind the bars tightly and then subsequent thickness should be built.

Levelling and initial finishing should be carried using a wooden or plastic float. Final finishing should be carried out using a steel float.

#### 5. CURING

Good curing is essential. Particular care is required in hot and / or windy conditions. Curing can either be done with a single coat of Curing Compound or by covering the repaired area with wet hessian cloth fixed over repaired section.

#### TECHNICAL INFORMATIONS

Appearance:	Powder
Colour:	Grey
Water: Product ratio by weight:	0.12-0.14
Fresh Wet density. Kg / m <sup>3</sup> :	2300 + 50
Application thickness in one stroke:	50mm
<b>Compressive strength BS: 6319: part 2</b>	
1 day - N/mm <sup>2</sup>	25 – 30
3 day - N/mm <sup>2</sup>	40 - 45
7 day - N/mm <sup>2</sup>	60 - 70
<b>Flexural strength BS: 6319: part 3</b>	
7 day - N/mm <sup>2</sup>	19 – 20
<b>Tensile strength BS: 6319: part 7</b>	
7 day - N/mm <sup>2</sup>	6 - 7
<b>Bond strength ASTM: C 881</b>	
7 day - N/mm <sup>2</sup>	5 - 6
<b>Water permeability</b>	
%	< 1

#### PRECAUTION & LIMITATIONS

Do not mix with excess water.

Do not apply at the temperature, below 10°C.

#### COVERAGE:

- Yield – 12.4 litter per 25 kg's bag @ w/p – 0.14
- 1 – 1.2 Sq Mtr per bag (25 kg) mix at 10mm thickness

#### PACKING:

25 kg.

#### STORAGE & LIFE:

Shelf life is 6 months from date of manufacturing in unopen condition.

Store at cool and dry place away from moisture.

#### HEALTH & SAFETY:

Use rubber hand gloves & safety goggles, while using **MAX 2011 SEM PMM**

In case of contact with skin, may irritate, wash with plenty of water.

Consult physician, if required.

Keep out of reach of children's

#### TECHNICAL INFORMATION & SERVICES:

Further information and advice, including practical demonstration are freely available with the Technical Service Department of **SEMITRONE CONCHEM PVT LTD - AHMEDABAD.**

**DISCLAIMER:** The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests & take trials to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, quality of other materials used and the on-site workmanship are factors beyond our control, there are no expressed or implied guarantee / warranty as to the results obtained. The company does not assume any liability or consequential damage for unsatisfactory results.