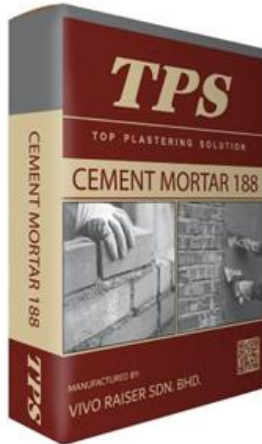


METHOD STATEMENT

TPS CEMENT MORTAR 188 40KG



1. INTRODUCTION

TPS Cement Mortar 188 40kg is a high-strength masonry cement binder designed to produce an MC 12.5 grade mortar when mixed with graded sand on-site. It is highly versatile and designed for load-bearing masonry laying (bricks and blocks), as well as serving as a high-quality backing coat or rendering layer for internal and external walls. This method statement covers substrate preparation, mixing, dual-purpose application procedures, curing, and quality control.

2. SUBSTRATE PREPARATION & INSPECTION

1. Ensure all substrates (brick wall, block wall, or concrete) are clean, sound, and free of dust, grease, oil, formwork oil, paint, or loose material.
2. Repair cracks or holes using appropriate filler and all mechanical and electrical (M&E) chasing must be patched and cured prior to rendering.
3. For absorbent or porous substrates (such as AAC blocks or dry red bricks), lightly dampen the surface with clean water before application to prevent rapid moisture loss or apply a bonding agent.
4. Mask surrounding areas to prevent splashes.
5. For smooth concrete surfaces (shear walls/columns), apply a "spatter dash" key coat or a bonding agent primer if required by the project specification.



3. MATERIAL PREPARATION & SITE MIXING RATIOS

TPS Cement Mortar 188 (40kg per bag) + Clean, graded river sand (fine sand for plastering, slightly coarser for bricklaying).

Water: Clean, potable water.

Mixing Proportions – 1:3 – 1:4 (TPS Cement Mortar 188 : Sand)

4. MIXING PROCEDURE

1. Start the tong molen (drum mixer).
2. Add a portion of the required clean water into the drum first.
3. Add half of the required sand, followed by the ratio provided in section 3.
4. Add the remaining sand and slowly top up with water until the desired workable consistency is achieved.
5. Mix continuously for 3 to 5 minutes to ensure a smooth, lump-free, creamy and "fluffy" paste.
6. Pot Life: Use the mixed mortar within 1 – 1.5 hours. Do not re-temper the mix by adding more water once it begins to stiffen.

5. APPLICATION

5.1 Bricklaying / Blocklaying

1. Apply a full, even bed of mortar onto the substrate or the previous course of masonry.
2. Maintain a mortar bed thickness of 10 mm to 15 mm.
3. Place the masonry unit onto the mortar bed and tap into place to ensure full contact and level alignment.
4. Scrape off excess mortar extruded from the joints immediately and use it to fill the perpend (vertical joints).

5.2 Plastering / Rendering

1. Apply the mortar onto the prepared substrate using a steel trowel.
2. The recommended application thickness is 10 mm to 15 mm per coat.
3. For multi-layer applications (where total thickness exceeds 15 mm), the first coat must be lightly scratched (keyed) while wet and allowed to cure until firm before applying the subsequent coat.
4. Use an aluminium straight edge to rule off and level the surface. Fill any hollows with fresh material and re-level.
5. Finish with a wooden or polyurethane float.

**Avoid over-troweling, as this may cause surface cracking or powdering.

**Avoid over-sponging, which can bring excess water to the surface and cause crazing.

6. TECHNICAL SPECIFICATION

Parameter	Typical Value / Range
Layer Thickness	10–12 mm per coat
Compressive Strength (28 days) <i>(Between 12.5MPa to 32.5MPa)</i>	20MPa
Soundness	Less than 10mm
Water Retention	99.67%
Air Content	13%
Pot Life	60-90 minutes
Sulfate Content	< 3.5%
Chloride Content	< 0.1%
Open Time	10–15 minutes
Initial Set	1 hour – 1.5 hour

Final Set	4–6 hours
Storage Life	6 months (dry, cool storage)

7. CURING PROCESS

1. Protect freshly applied plaster/mortar from excessive vibration, impact, and direct rain for the first 24 hours.
2. Due to TPS Cement Mortar 188 high water retention formula, natural air curing is generally sufficient under normal conditions.
3. However, under extremely hot or windy Malaysian site conditions, light mist spraying with water for the first 2 days is recommended to prevent rapid moisture loss.
4. Allow the plaster to cure for a minimum of 7 to 14 days before applying skim coats or paint systems.

8. SAFETY COMPLIANCE

1. Wear gloves, goggles, and dust mask. Avoid inhalation of dust and contact with skin.
2. First aid: In case of contact with skin or eyes, rinse immediately with clean water and seek medical advice if irritation persists.
3. Dispose of waste and wash water responsibly; do not discharge into drains or waterways.



9. DISCLAIMER

The information provided herein is based on our best knowledge and is intended as a general guide for the proper use of TPS Cement Mortar 188 40kg. Conditions of use are beyond the manufacturer’s control, and no warranty is expressed or implied. It is the responsibility of the applicator/contractor to determine the suitability of the product for the intended application.

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