

M623 SELF-LEVELING



Technical Data Sheet

PRODUCT DESCRIPTION

M623 Standard Self-Leveling is a cement-based self-leveling mortar designed for fine leveling of floors in residential, public, and industrial buildings of any size. It is particularly suitable for leveling substrates with significant vertical drops or for use as a backfill for underfloor heating systems. This product creates a smooth, flat foundation for the installation of various floor coverings, including PVC and carpet.



FEATURE

- Green and environmentally friendly
- Low shrinkage
- Thick application up to 50 mm
- Economic and practical

SUITABLE SUBSTRATE

- Absorbent concrete
- Cementitious mortar screeds
- Non-absorbent substrates (with suitable primer)

SUBSTRATE PREPARATION

1. The substrate must be structurally sound, clean, dry, and free from grease, oil, dirt, dust, curing compounds, waxes, sealers, or any bond-breaking contaminants.
2. Mechanical methods such as grinding or sanding shall be used to remove loose dust and contaminants to achieve the required surface profile.
3. Substrate cracks MUST be identified by type and appropriately remediated prior to installation.
4. Concrete must be fully cured (28 days) and treated for any hydrostatic moisture, rising damp, or construction moisture as required.
5. Smooth or non-absorbent surfaces (e.g., glazed tile, polished stone) must be roughened or scarified to promote adhesion.
6. To ensure proper adhesion, the substrate should be sealed with a primer.
7. For absorbent surfaces, a water-based primer is recommended, while a non-absorbent primer is ideal for non-absorbent substrates.

PRODUCT APPLICATION

1. Clean the substrate and apply the appropriate primer. Wait until the primer is fully dried.
2. Pour 4.25–4.75 liters of clean water into a mixing container.
3. Slowly add one 25 kg bag of M623 Self-Leveling powder into the water and mix mechanically for 3–5 minutes until properly blended.

4. Immediately after mixing, pour the slurry evenly onto the substrate and spread to the desired thickness using a spreader or gauge rake.
5. Before initial setting, use a specialized defoaming roller to remove entrapped air from the slurry to ensure uniform thickness. Protect the fresh application from direct sunlight, wind, and rain droplets.
6. All operations should be completed within 20 minutes.

TECHNICAL CHART

Packaging	25kg/bag
Mixing Ratio	4.25-4.75 L of water per bag
Application Thickness	10-50 mm
Consumption	1.75 kg/mm/m ²
Fluidity	> 125 mm
Open Time	>20 minutes
Completely Dry	After 24-48 hours
Compressive Strength	>20 MPa (28days)
Flexural Strength	>4 MPa (28days)

Note: Test results are carried out at 23°C and 50% ambient RH; product performance will vary according to onsite conditions.

PRODUCT LIMITATIONS

1. M623 Self-Leveling is intended for interior use only.
2. Do not apply over unstable subfloors (deflection exceeding L/360) or loosely bonded old floor coverings.
3. Avoid application when ambient temperature is below 5 °C or above 35 °C during application and initial curing (first 24 hours).
4. Mixing water temperature should be between 10 °C and 30 °C.
5. Do not use on sloped surfaces requiring drainage.
6. The product contains cement. Wear appropriate personal protective equipment (PPE) during handling and application.
7. This product reacts with water to produce a highly alkaline substance. Avoid contact with skin and eyes. In case of contact, rinse immediately with water. If injury occurs to the skin or eyes, seek medical attention without delay. Once hardened, the product will not have any harmful effects on health or the environment.

PRODUCT MAINTENANCE

Properly installed M623 Ultra-Strong Cementitious Self-Leveling requires no special maintenance. It is not recommended to be used as a finished wear surface. If used as a wear surface, apply a properly selected curing agent, sealer, or coating to increase durability and stain/wear resistance.

PACKAGING

25kg (55lbs) Paper-Plastic Valve Bag

COVERAGE REFERENCE *Estimated at 1.75 kg/m²/mm; assuming per 25kg (55lbs) pack of M623 Self-Leveling:*

Thickness	Coverage
3 mm	4.8 m ² (52 f ²)
6mm	2.4 m ² (26 ft ²)
10mm	1.43 m ² (15.4 ft ²)

Note: Chart for estimating purposes. Coverage may vary based on installation practices and jobsite conditions.

STORAGE & SHELF LIFE

The shelf life of M623 Self-Leveling is 9 months from the date of manufacture when stored in a cool, dry location (23°C, 45% RH) and the product is kept in its original, unopened, and stretch-wrapped packaging. Do not stack over 1.5 tons of material on top of each pallet.

** Prolonged storage may affect application performance, typically causing a slight decrease in flowability and potentially lower final strength. For best results, it is recommended to use the product as early as possible within its shelf life.*

EXECUTION STANDARD

JC/T 985-2017 Cementitious Self-Leveling Compound For Floors

SAFETY INFORMATION

PLEASE READ THE SAFETY DATA SHEET THOROUGHLY PRIOR TO APPLYING THE PRODUCT

Ensure suitable PPE (Personal Protective Equipment) such as protective gloves, respiratory, face, skin and eye protection are worn at all times while handling this product. Avoid breathing dust, fumes, gas, mist, vapors or spray. Avoid contact with eyes and skin. If this product comes in contact with skin, rinse with soap and plenty of water. If the product comes in contact with eyes, wash out immediately with water. Ensure adequate ventilation during mixing and application. Wash contaminated clothing before reuse. Keep out of the reach of children. Call a doctor if you feel unwell. Safety Data Sheet (SDS) is available on request.

TECHNICAL SERVICES

Adhere to all product limitations, and if unsure about a particular application, contact Morient Mortar at:

USA: (908) 809-5672

International: (0086) 400-878-0800

Email: info@msyh.com.cn