

M520 STANDARD SELF-LEVELING



Technical Data Sheet

PRODUCT DESCRIPTION

M520 Standard Self-Leveling is a premium, cement-based self-leveling mortar engineered for high-performance floor leveling in residential, commercial, and light industrial applications. Designed with advanced fluidity technology, it creates a smooth, flat, and sound foundation perfectly suited for the subsequent installation of sensitive floor coverings such as PVC, LVT, carpet, and engineered wood. M520 Standard Self-Leveling is suitable for leveling applications up to 10 mm.



FEATURE

- Exceeds requirements for resilient floor covering installations
- Low-dust finishing and no sanding required after dried and cured
- Installation and leveling up to 10 mm per single pour
- Rapid setting and ready for flooring in 18 to 24 hours

SUITABLE SUBSTRATE

M520 Standard Self-Leveling is suitable for following substrates when the substrates are properly treated with an appropriate primer:

- Absorbent and Non-absorbent Concrete
- Cementitious Mortar Screeds
- Well-bonded Ceramic Tile
- Cement and Epoxy Terrazzo
- Exterior Grade Plywood and OSB

Note: A reinforcement with steel mesh is always recommended when applying over a nonabsorbent substrate to enhance bonding and system integrity.

SUBSTRATE PREPARATION

1. The substrate must be compliant, structurally sound, clean, dry and free from contaminants such as grease, oil, dirt, dust, curing compounds, waxes, sealers, efflorescence, or any other matter that may act as a bond-breaker.
2. To ensure maximum bonding strength to the substrate, surface contaminants should be removed by mechanical methods such as grinding or shot blasting to achieve the required CSP.
3. Substrate cracks MUST be identified by type and appropriately remediated prior to the installation.
4. Concrete must be fully cured for 28 days old and treated for any hydrostatic moisture, rising damp or construction moisture as required prior to the installation. According to relevant needs for moisture control, select and apply M139 Water-Based Reinforcer or M190 Epoxy Moisture Barrier in replacement of the primer.
5. Smooth concrete surfaces, existing glazed tile, terrazzo, or polished stone need to be roughened or scarified to achieve the appropriate CSP.

- Plywood and OSB including those under resilient flooring must be structurally firm and sound. Any loose areas or deflection (L/360) must be addressed prior to installation of the leveling compound.
- Prepare substrate properly with appropriate primers; select from M318 Water-Based Primer, M320 Non-Absorbent Primer, or M350 General Primer according to substrate type. Refer to the Primer datasheet for details.

PRODUCT APPLICATION

- Pour 6 to 6.5 liters of clean water into a dust-free mixing bucket.
- Slowly add the 25kg bag of M520 Standard Self-Leveling into the bucket and mix mechanically with a suitable drill and paddle at 600–650 RPM.
- Continue mixing for 2 minutes until the mixture is completely lump-free. Avoid overmixing or deviating from the specified water ratio.
- Immediately after mixing, pour the product out and spread it to the desired thickness using a gauge rake.
- Directly after dispersion, use a spiked roller or smoothing blade to level inconsistencies and break entrapped air bubbles for a uniform appearance.
- Maintain a wet edge throughout the entire application to ensure a seamless finish. The open time for work of M520 Standard Self-Leveling is around 20 minutes with an ambient temperature around 20°C.

TECHNICAL CHART

Property	Results
Water-Powder Ratio	24-26 % (by weight)
Applicable Thickness	Up to 10 mm
Pot Life (in bucket)	Around 20 minutes
Self-Healing Time	Around 20 minutes
Initial Flow	>135 mm
Final Flow (20 min)	>130 mm
28-Day Compressive Strength	>25 MPa (3,600 psi)
28-Day Flexural Strength	>5 MPa (720 psi)
28-Day Tensile Bond Strength	>1.5 MPa (210 psi)
Walkable After	4-8 hours

Time Before Installing Floor Covering	
Ceramic Tile/Non-moisture sensitive floor covering	>6-8 Hours
Resilient Floors/Moisture-sensitive floor coverings	>18-24 Hours

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

PRODUCT LIMITATIONS

- M520 Standard Self-Leveling is for interior-use ONLY.
- Never apply M520 Standard Self-Leveling over unstable subfloors (maximum deflection allowed: L/360) or loosely-bonded old floorings, including tiles and various types of resilient floorings.
- Never apply M520 Standard Self-Leveling when ambient temperature is not between 5-35°C during application and the initial curing stage (24hr after application).

4. Ensure all mixing water used is between 10-30°C.
5. M520 Standard Self-Leveling should not be used over sloped surfaces that require drainage.
6. M520 Standard Self-Leveling contains cement; wear proper personal protective equipment (PPE) during application.

PRODUCT MAINTENANCE Properly installed M520 Standard Self-Leveling requires no special maintenance. It is not recommended to be used as a finish or wear surface. If used as a finish or wear surface, apply a properly selected curing agent, sealer, or coating to increase durability and stain and wear resistance.

COVERAGE REFERENCE Estimated at 1.75 kg/m²/mm; assuming per 25kg (55lbs) pack of M520 Standard Self-Leveling:

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

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

PACKAGING 25kg (55lbs) Paper-Plastic Valve Bag

SHELF LIFE The shelf life of M520 Standard 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, vapours 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

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