

Technical Data Sheet

### **Product Overview**

The Gold Series MW 3012 is a high strength one component modified silane adhesive used for the permanent installation of vinyl, vulcanized rubber and recycled rubber flooring products. Unlike urethanes and epoxies, MW 3012 does not contain any Red List 3.0 Chemicals, EPA Chemicals of Concern or any other hazardous chemicals.

The MW 3012 can be installed over a wide variety of substrates in indoor and outdoor areas, allowing for the installation of flooring materials in entrances or areas that are not temperature controlled. MW 3012 is extremely strong, suitable for heavy rolling loads, waterproof once cured and extremely resistant to high levels of

moisture and alkalinity, whether topical or from the substrate.

The MW 3012 has excellent initial grab and although incredibly strong, the MW 3012 is easy to clean up, wet or dry, and will not mar or etch the surface of flooring materials.

### **Features**

- Excellet Initial Grab and Superior Shear Strength
- Indoor/Outdoor
- ☑ Waterproof Once Cured
- Easy Clean-Up
- Will Not Mar or Discolor Flooring
- No EPA Chemicals of Concern
- ☑ No Red List 3.0 Chemicals
- ☑ Qualifies for LEED® Credits

### **Technical Data**

Unit Size: 3 Gallons

Unit Weight: 37 lbs.

VOC Emissions: 0.1 g/l

ASTM F2170 RH Limit: 95% RH

ASTM F1869 MVER Limit: 8 lbs.

Unit Coverage Rate - ≤4mm Flooring: 690 sq. ft.

Unit Coverage Rate - >4mm Flooring: 480 sq. ft.

Porous Flash Time: 5 - 10 Minutes

Non-Porous Flash Time: 15 - 20 Minutes

Working Time: 35 - 40 Minutes

Light Foot Traffic: 8 - 12 Hours

Heavy Foot Traffic / Heat Welding: 24 Hours

Heavy Rolling Loads: 48 Hours

Maintenance: 48 Hours

Shelf Life: 1 Year unopened

Storage & Installation Temperature: 65° - 85° F

Installation Ambient Humidity: 40% - 75% RH

## **Trowel Selection Chart**

Floor Thickness	Trowel Size	Spread Rate	
≤ 4mm	1/32" x 1/16" x 1/32" U Notch	220 sq. ft. / Gallon	5.5 sq. m. / Litre
4mm - 18mm	¥ ¼ <sub>16</sub> → ₩ ¼ <sub>18</sub> ¾ ¼ <sub>1</sub> 1/16" x 1/16" x 1/16" V Notch	160 sq. ft. / Gallon	4 sq. m. / Litre
> 18mm	↓ →1/6← →1/6← /*  1/8" x 1/8" x 1/8" Square Notch	120 sq. ft.	3 sq. m / Litre

### **Product Limitations**

All timing and coverage rates are subject to substrate conditions, such as porosity and flatness, and ambient conditions, such as ambient air temperature, relative humidity and substrate temperature. Actual timing and coverage rates may vary. Do not install if ambient humidity is outside of prescribed range or has reached dew point. Do not install adhesive over substrates which contain known or obvious contaminants, excessive moisture or hydrostatic pressure. Adhesive cannot resist extreme dimensional instability of flooring materials, which may cause gapping, cupping, buckling and/or edge lifting. Do not install over existing rubber flooring, LVT/LVP, asphaltic materials and adhesives or adhesive residues. When installation over non-porous substrates, do not install adhesive when ambient relative humidity levels are below 50% RH without humidifying air or substrate.



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#### 1. PRE-INSTALLATION

- ☐ Consult all associated technical data for all related products and procedures, including adhesive, maintenance and warranty documents, prior to installation.
- Allow all trades to complete work prior to installation.
- Deliver all materials to the installation location in their original packaging with labels intact.
- Inspect all materials to ensure there is no leakage or damage.
- Do not stack pallets to avoid damage.
- Remove all plastic and strapping from product after delivery and inspect for visible or obvious damage.
- Ensure that adhesive is approved for use with flooring material.
- Ensure installation area and material storage conditions are between 65° F (19° C) and 85° F (30° C) for at least 48 hours before, during and after installation.
- Ensure HVAC system is operational and fully functioning at normal operating conditions.
- Protect installation area from extreme climate changes, such as heat, freezing, humidity, and direct sunlight, for at least 48 hours prior, during and 48 hours after installation.
- Ensure all substrate preparation requirements have been performed, read and/or understood by all interested parties.
- Ensure all vents, walls, moldings and/or doorways are protected with tape or plastic prior to installation.
- ☐ Test substrate for porosity in order to determine the installation method necessary.
- Do not proceed with installation until all conditions have been met.

#### 2. SUBSTRATE PREPARATION

All substrates must be prepared according to ASTM F710, as well as all other applicable ASTM, ACI and RFCI guidelines. Substrates must be clean, smooth, permanently dry, flat, and structurally sound. Substrates must be free of visible water or moisture, dust, sealers, paint, sweeping compounds, curing compounds, residual adhesives and adhesive removers, concrete hardeners or densifiers, solvents, wax, oil, grease, asphalt, visible alkaline salts or excessive efflorescence, mold, mildew and all other extraneous coating, film, material or foreign matter.

All substrates must have all existing adhesives, incompatible materials, contaminants or bond-breakers mechanically removed via scraping, sanding or grinding prior to adhesive installation. In extreme situations, shotblasting may be required. Mechanical preparation must expose at least 90% of the original substrate. Following cleaning and removal, all substrates must be vacuumed with a flat vacuum attachment or damp mopped with clean, potable water to remove all surface dust. Sweeping without vacuuming or damp mopping will not be acceptable.

All porous substrates must be tested per ASTM F3191 to confirm porosity. All substrates that do not meet porosity requirements are considered non-porous. Ensure that all non-porous substrates

are not contaminated with aforementioned contaminates and that all installation guidelines for non-porous substrates are followed. It is recommended that all substrates have a floor flatness of FF32 and/or a flatness tolerance of 1/8" in 6' or 3/16" in 10'. Substrates that do not meet this requirement should have a compatible cementitious patch or self-leveling underlayment installed to flatten the installation area.

Do not use solvent/citrus based adhesive removers prior to installation. Follow The Resilient Floor Covering Institute's (RFCI) "Recommended Work Practice for Removal of Existing Floor Covering and Adhesive", and all applicable local, state, federal and industry regulations and guidelines. When removing asbestos and asbestos containing materials, follow all applicable OSHA standards.

#### **CEMENTITIOUS SUBSTRATES**

All cementitious substrates, including self-leveling underlayments, must have a minimum compressive strength of 3000 PSI and be prepared in accordance with ASTM F710 and ACI 302.2R. When flooring is being installed directly over concrete, surfaces that have an ICRI Concrete Surface Profile (CSP) of 5 or more should be smoothed with a self-leveling underlayment or a cementitious patch to prevent imperfections from telegraphing through flooring materials. On or below grade concrete must have a permanent, effective moisture vapor retarder installed below the slab.

New or existing concrete substrates on all grade levels must be tested in accordance with ASTM F2170, using in situ Probes, to quantitatively determine relative humidity no more than one week prior to the installation.

In addition to ASTM F2170 Relative Humidity Testing, existing concrete that has previously had floor covering installed on all grade levels must be tested in accordance with ASTM F1869, using Calcium Chloride test kits, to quantitatively determine the Moisture Vapor Emissions Rate (MVER) of the concrete.

If ASTM F2170 or ASTM F1869 test results exceed the prescribed limits, a moisture mitigation product must be installed prior to proceeding with installation. Do not install flooring until moisture testing has been conducted per the appropriate standard and/or moisture mitigation has been installed and is dry to the touch. Do not install flooring in below grade areas when hydrostatic pressure is visible or suspected.

#### LIGHTWEIGHT/GYPSUM SUBSTRATES

Lightweight or gypsum substrates must have a minimum compressive strength of 2000 PSI when installed over a wood substrate or 3000 PSI when installed over a concrete substrate. Lightweight or gypsum substrates must be installed and prepared in accordance with ASTM F2419 or ASTM F2471, respectively. Lightweight or gypsum substrates that do not meet these requirements should be strengthened with a compatible repair product to improve the compressive strength of the substrate. Substrate must be structurally sound and firmly bonded to subfloor. All cracked or fractured areas must be removed and repaired with a compatible repair product. New or existing substrates may require a sealant or primer be installed prior to resilient floor installation. Follow the substrate manufacturer's recommendations regarding preparation for resilient flooring.



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#### WOOD SUBSTRATES

Wood substrates must be compliant with and prepared in accordance with ASTM F1482. Wood substrates should be of double layer construction with a recommended total thickness of 1" or more (depending on federal, state and local building codes). For standard installations, the top layer must be an APA Underlayment Grade plywood or equivalent with a minimum thickness of 1/4". Plywood must be smooth, free of knots or voids and fully sanded. When floors may be subjected to moisture, use an APA approved exterior grade plywood.

Other wood subfloor materials, such as CDX, OSB, lauan, particleboard, chipboard, fiberboard or cementitious tile backer boards, are not acceptable substrates. Do not use preservative-treated and fire-retardant plywood, as some may be manufactured with resins or adhesives that may cause discoloration or staining of the flooring. Do not install flooring directly over solid or engineered hardwood flooring without first installing plywood or a suitable cementitious repair product at a minimum thickness of 1/4" over the hardwood flooring.

Wood subfloor deflection, movement, or instability may cause the flooring installations to release, buckle or deform. As such, do not use a plastic or resin filler to patch cracks. Do not use cement or rosin coated nails and staples or solvent-based construction adhesives to adhere the plywood. Do not install resilient flooring directly over a sleeper system (wood subfloor over concrete) or Sturd-I-Floor panels.

#### **RESINOUS SUBSTRATES**

When installing directly over a resinous products, such as an epoxy coating, ensure the coating is dry to the touch and has cured for the prescribed length of time. Substrate must be clean, dry, sound and free of contaminates. Be sure to follow adhesive installation procedures for non-porous substrates.

#### **METAL SUBSTRATES**

Metal substrates must be thoroughly sanded/ground to remove all residue, oil, rust and/or oxidation. Substrate must be smooth, flat and sound prior to installation. When installing in areas that may be subject to topical water, moisture and/or high humidity, an anti-corrosive coating should be applied to protect metal substrate. Contact a local paint or coating supplier for coating recommendations. Install flooring material within 12 hours after sanding/grinding to prevent re-oxidation. Deflection in the metal floor can cause a bond failure between the adhesive and the metal substrate. Be sure to follow installation procedures for non-porous substrates.

#### **EXISTING FLOORING SUBSTRATES**

Existing LVT, rubber or cork flooring, as well as the adhesives used to install them, must be completely removed from the substrate prior to installation. Existing hardwood flooring, asphaltic materials and existing adhesives or adhesive residue must have a compatible cementitious patch or underlayment installed over the substrate prior to installation. Existing hardwood flooring may also have suitable underlayment grade plywood installed over the substrate.

Adhesive may be installed over existing resilient vinyl flooring substrates, including VCT, VAT, quartz tile and solid vinyl tile, as

well as existing hard surface flooring substrates, such as terrazzo, porcelain or ceramic tile. Ensure existing flooring is a single layer of material and that all materials are clean, dry, sound, solid, well adhered and free of site-applied finishes, waxes and/or contaminants. All loose material must be removed and repaired or replaced. When handling asbestos containing materials, ensure all OSHA regulations are followed and all procedures are compliant with local, state, federal and industry regulations and guidelines. All grout lines, wide seams and imperfections must be filled and troweled flush with a suitable cementitious patch. All existing flooring substrates that are outside of flatness tolerances should repaired with a cementitious patch or self-leveling underlayment to avoid telegraphing imperfections through flooring material.

All existing flooring substrates must have any and all site-applied finishes and/or waxes completely removed prior to flooring installation in order to ensure a proper adhesive bond. For mechanical removal, use a low-speed buffer and 40-60 grit sandpaper. Properly prepared substrates should not have any remaining gloss or sheen. For chemical removal, ensure chemical treatments will not disrupt adhesion of the existing flooring to the substrate. Be sure to rinse the existing flooring adequately with clean, potable water to remove any and all chemicals from the surface of material. When removing finish from asbestos containing materials, ensure all OSHA guidelines regarding the removal of finish from asbestos is followed, in addition to applicable federal, state, local and industry regulations and guidelines.

Do not install flooring until any moisture on, between or below existing flooring has completely dried. Ensure all dust, dirt and debris are removed prior to flooring installation. Existing flooring substrates are non-porous – follow all installation instructions and flash times for non-porous substrates.

#### RADIANT HEATING SUBSTRATES

When installing flooring over a substrate that contains a radiant heating system, ensure the radiant heat is no higher than 70° F (21° C) 48 hours prior to and during the entire installation. 48 hours after installation, the radiant heat may be gradually increased over the course of 24 hours, until normal operating temperature is reached. Ensure the temperature of the radiant heating system does not exceed 85° F (29.5° C) and avoid making abrupt changes in radiant heating temperature.

#### 3. CONSTRUCTION JOINTS & CRACKS

All cracks, construction joints and other voids, as well as the areas surrounding them, must be clean and free of dust, dirt, debris and contaminants. All minor cracks 3/64" wide or less must be repaired with a compatible cementitious patch.

Due to the dynamic nature of concrete, manufacturer cannot warranty installations directly over construction joints (such as control cuts or saw joints), expansion joints, cracks or other voids wider than 3/64". Construction joints, expansion joints or cracks wider than 3/64" must have a suitable crack repair or joint repair system installed per the below recommendations.

All expansion joints should have a suitable expansion joint covering system installed to allow for expansion and contraction



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of the joint. To treat expansions joints where an expansion joint covering system can't be installed or to treat through cracks (depth at least 75% of the thickness of the concrete), chase joint or crack with a suitable saw or grinder and open to a minimum width of ¼". Be sure to clean all dust, dirt and debris from crack. Joints and cracks should then be sealed with a suitable, elastomeric caulk designed for use in expansion joints. Install a closed-cell backer rod at prescribed depth and follow all caulk manufacturer's instructions for installation. Ensure surface is troweled flush with surface of concrete.

To treat construction joints and surface cracks over 3/64", chase joint or void with a suitable saw or grinder and clean all dust, dirt and debris from crack. Fill entire crack with a rigid crack treatment designed for use in construction joints or cracks. Follow material manufacturer's instructions for installation. Ensure surface is troweled flush with surface of concrete.

Consult a project engineer or architect prior to treating cracks or joints, especially those that may affect structural integrity (such as expansion joints). Review all manufacturer installation instructions and/or consult manufacturer technical staff for all crack or joint filling products prior to treating construction joints and cracks.

#### 4. PRODUCT APPLICATION

Ensure substrate is suitably prepared prior to installation, as manufacturer is not responsible for substrates that have not been properly prepared and tested for moisture. Ensure adhesive is approved for use with flooring material and the proper trowel type and size is used, as manufacturer is not responsible for any and all adhesion issues related to improper adhesive selection or usage. To determine correct trowel size, see chart on page 1. When installing material over non-porous substrates, ensure ambient relative humidity is at least 50% RH to allow for proper curing conditions.

Use a nail-down guide or equivalent visual aid along starting row to expedite installation. Spread adhesive using appropriate trowel size at a 60° angle, ensuring consistent coverage. Do not allow adhesive to puddle or pool. Replace trowels at regular intervals to maintain proper trowel ridge height and spread rate.

Allow adhesive to flash for 5-10 minutes (15-20 minutes for non-porous substrates) and protect area from dust, debris and contamination. When installing sheet goods, allow adhesive to flash for 10-15 minutes (20-25 minutes for non-porous substrates) to avoid excessive shifting during installation. Once flashed, install flooring material into fresh adhesive within 40 minutes.

When installing into wet adhesive, avoid walking or working on material until adhesive has cured for light foot traffic. Working on material that is installed into wet adhesive could cause adhesive to displace. When working off of material is not possible, use a kneeling board or equivalent to disperse weight evenly and prevent adhesive displacement.

Periodically lift material to ensure proper adhesive transfer - adhesive should cover 90% of sheet or tile. Pay close attention to flash times to avoid adhesion issues - this may require installing material in smaller sections, especially when installing sheet goods over porous substrates.

Immediately after installation, roll the installation area with a 3 section, 75 lb. - 100 lb. floor roller, crossing in a perpendicular direction after initial roll. Use a hand roller in areas that cannot be reached with a larger roller. Re-roll flooring 30-60 minutes after initial roll. Visually inspect installation to ensure that material has not shifted and that adhesive has not been squeezed out of joints or compressed onto surface.

#### 5. PRODUCT CLEAN-UP

Adhesive can be easily removed when wet or dry. Wet adhesive or adhesive residue can be removed from flooring materials with a clean cloth and denatured alcohol - **do not** pour or apply abrasive or solvent-based cleaners directly to material. Adhesive that has dried on the surface of flooring materials can be mechanically removed with a pH neutral cleaner and a plastic putty knife, soft bristle brush or utility pad may be used. Tools and materials where adhesive has dried can be mechanically cleaned with a scraper or similar tool.

#### 6. WARRANTY

Gold Series provides a Limited 5 year material & labor warranty for all properly installed adhesive products. For additional information, see associated warranty documents.

FOR PROFESSIONAL USE ONLY. PLEASE CAREFULLY REVIEW ALL ASSOCIATED TECHNICAL DATA SHEETS, SAFETY DATA SHEETS, MAINTENANCE DOCUMENTS AND WARRANTY INFORMATION PRIOR TO INSTALLATION.