# MOTO INSTALLATION GUIDE GLUE-DOWN INSTALLATION

MOTO PVC-Free MCP floors are intended for dry interior commercial and residential applications. If you have questions at any time during the installation process, please contact your specialty floor covering retailer or call our support line at 888.255.3412.

## 1. STORAGE AND HANDLING

- Store boxes flat indoors in a climate-controlled environment on a clean, sound surface.
- Storage temperature should be between 65°F (18°C) and 80°F (27°C) and humidity should be between 30-70%.
- Product should be handled carefully to prevent damage during handling and installation.
- Inspect cartons before installing to ensure you have received the correct product and quantities.

## 2. ACCLIMATION

MOTO flooring requires a minimum of 24 hours to acclimate to the conditions of the installation area. Room temperature during acclimation should be between 65°F (18°C) and 80°F (27°C).

## 3. JOB-SITE CONDITIONS

- Permanent HVAC system should be in continuous operation for three weeks prior to installing MOTO planks.
- Job-site temperature should be between 65°F (18°C) and 80°F (27°C).
- Job-site relative atmospheric humidity must be kept between 40% to 60%.
- Refer to adhesive manufacturer's guidelines for additional temperature and humidity requirements.
- If installing in damp rooms (eg: bathroom, kitchen) areas where the floor meets walls or vertical objects should be filled in with silicone caulking.
- Direct sunlight is not recommended during and after installation.

## 4. GENERAL SUB-FLOOR PREPERATION

- Structural sub-floor systems are comprised of either concrete, cement-like materials or wood.
- For comprehensive, detailed information regarding



each of these systems, contact The American Concrete Institute or Engineered Wood Association.

- It is the contractor's responsibility to ensure the sub-floor and surface meets the required national, standard, local codes and specifications prior to installing MOTO floors.
- All sub-floors must be permanently dry, clean, smooth, and structurally sound. The surface must be free of all dust, loose particles, solvents, paint, grease, oil, wax, alkali, sealing/curing compounds, old adhesive, and any other foreign material that could affect the installation and adhesive bond to the substrate.
- Solvents and other abrasive chemicals used to clean or remove sub-floor contaminants can damage the products.
- Sub-floors should be made flat to within 3/16" per 10' in length. If necessary, an extra leveling surface may be applied on top of the existing floor.
   Failure to properly level sub-floors can result in telegraphing and damage to the product.
- Removal of an existing resilient floor covering that contains (or is presumed to contain) asbestos must comply with all applicable local, state and federal regulations.
  - Do not sand, dry sweep, dry scrape, drill, saw, shot-blast or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphalt "cutback" adhesive or other adhesive.

## 5. CONCRETE SUB-FLOORS

- Unless otherwise stated, follow the specific requirements of ASTM F710 (Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring). For copies of any of the ASTM standards, practices or test methods, please visit www.astm. org.
- Do not install MOTO floors over expansion joints, control joints, or other moving joints in the substrate. These joints must be respected and should not be filled with products that are not intended for that purpose. Contact an expansion joint cover manufacturer to meet specific flooring conditions.
- Inspect concrete sub-floor for visible defects such as cracks, bumps, rough areas or flatness variations.

- Patch and repair all cracks, voids and imperfections with levelling compound.
- All concrete sub-floors must be tested for moisture and pH (alkalinity) on every grade level.
- Moisture testing must be conducted in accordance with ASTM F2170 (Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using In Situ Probes) or ASTM F1869 (Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Sub-floor Using Anhydrous Calcium Chloride).
  - Following ASTM F2659 (Preliminary Evaluation of Comparative Moisture Condition of Concrete, Gypsum Cement and Other Floor Slabs and Screeds Using a Non-destructive Electronic Moisture Meter) is highly recommended and can provide qualitative information prior to performing ASTM F2170 or ASTM F1869.
  - Acceptable moisture limits can generally be found in the adhesive manufacturer's instructions, on the adhesive's label, and in the adhesive manufacturer's specifications. Test results must not exceed the limits stated by adhesive manufacturers and installations should not proceed until problems are corrected.
- Substrate surfaces should not read over 4% on electronic moisture meters for any adhesive application.
- Concrete sub-floor moisture should not exceed
  5-lbs per 1,000 s/f per 24 hours per ASTM F1869.
- Concrete internal relative humidity should not exceed 85% per ASTM F2170.
- Acceptable pH range can generally be found in the adhesive manufacturer's instructions, on the adhesive's label, and in the adhesive manufacturer's specifications. Test results must not exceed the limits stated by the adhesive manufacturer and installations should not proceed until problems are corrected.
- Concrete sub-floor PH level should not exceed 9.
- Concrete sub-floors must be fully cured for a minimum 30 days.
- Concrete sub-floor temperature should be kept between 65°F (18°C) and 80°F (27°C) for 48 hours prior, during and for 48 hours after installation.
- All testing must be formally documented and should be performed just prior to installation.

## 6. WOODEN SUB-FLOORS

- This section refers specifically to wood sub-floors made of plywood or similar underlayment material. It does not refer to a finished wood floor (eg. solid hardwood or engineered wood floors).
- Wood sub-floors must have a minimum 18" (47 cm) of cross-ventilated space between the bottom of the joist and ground. Exposed earth crawl spaces must be sealed with a suitable polyethylene moisture barrier. Sub-floors must meet local and national building codes.
- Wood sub-floor must be structurally sound and dry.
- If installing over crawl-spaces, ensure crawl space moisture abatement system meets local building codes.
- Inspect sub-floor for protruding nails/screws and/or loose panels and fix accordingly. Countersink nail heads and fill depressions, joints, cracks, gouges, and chipped edges with a good quality approved patching compound designed for this purpose.
- Panel joints should be smoothed and filled using a leveling compound.

## 7. CERAMIC TILE, TERAZZO SUB-FLOORS

- Terrazzo and Ceramic floor surfaces must be thoroughly sanded to remove all glaze and waxes.
- Remove or replace all loose tiles and clean grout lines.
- Use a good quality leveling compound to fill all grout lines and other depressions.
- Allow leveling compound to dry fully.
- Clean thoroughly to remove dust and debris prior to installation of MOTO flooring.

## 8. CARPET, LINOLEUM, VINYL, HARDWOOD, LAMINATE

- Remove any existing finished floor surface such as carpet, linoleum, vinyl (sheet and plank), hardwood and laminate prior to installing MOTO flooring.
- Any glues or residues left after removal of existing floors should also be removed.
  - Contaminants should be mechanically removed; DO NOT use chemicals or solvents to remove them.

## 9. UNDER FLOOR HEATING SYSTEMS

- Please follow the following guidelines if installing MOTO flooring over sub-floors with radiant heating systems
- Heating systems must be fully embedded in concrete slab or in well-bonded and appropriate leveling compound (in the case of electrical systems).
- Concrete slabs must be fully cured prior to installation of MOTO flooring.
- The heating system must be commissioned and in operations for a minimum 30 days before the floor planks are installed to ensure that the subfloor is stable and the heating system is working as required with no leaks or cable breaks.
- Sub-floor temperature should never exceed 85°F (27°C).
- Temperature must be kept at the maximum 85°F (27°C) for 7 days prior to installation of planks.
- Radiant heating system should be turned off for 48 hours prior to installation of planks BUT room temperature must never be less than 65°F (18°C) during this period.
- Radiant heating system should remain off for 72 hours after installation of planks BUT room temperature must never be less than 65°F (18°C) during this period.
- After 72 hours, turn system on gradually (3 to 5 degrees per day) to avoid a sudden change in temperature.

## **10. INSTALLATION OF PLANKS**

- Inspect all planks carefully to confirm color, pattern and to ensure they have not been damaged during transportation/handling.
  - DO NOT INSTALL PLANKS WITH VISIBLE DEFECTS.
- Begin installation at the center of the room.
  - Snap a chalk line in the center of the room parallel to the longest wall.
  - Ensure planks are installed along the center line.
- Apply downward pressure to the planks so they are well seated into the adhesive.
- Press planks firmly against adjoining planks for a tight fit.
- Plank-ends should be staggered (stair-stepped) from row to row by a minimum of 8" (203 mm).

- Use a utility knife to cut planks by scoring and snapping to desired size.
  - If cutting irregular shapes, it is recommended to use a paper template and superimpose it on planks.

#### **11. ADHESIVE SELECTION & APPLICATION**

ONLY APPROVED ADHESIVES SHOULD BE USED. INHAUS IS NOT RESPONSIBLE FOR ADHESION ISSUES RELATED TO IMPROPER ADHESIVE SELECTION, APPLICATION OR USAGE.

- For a list of approved adhesives please call 888.255.3412.
- Consult all associated product literature concerning adhesive installation, maintenance and warranty prior to installation of flooring.
- Follow adhesive manufacturer guidelines.
- Ensure proper trowel type and size is used.
- Concrete substrate porosity testing is highly recommended following ASTM F3191-16 (Standard Practice for Field Determination of Substrate Water Absorption (Porosity) for Substrates to Receive Resilient Flooring -Significance and use Concrete) as substrate porosity affects adhesive open time and eventual drying time.
- Adhesive coverage varies based on substrate porosity.
- Bond testing is recommended prior to installation.
- Apply only a workable amount of adhesive at a time with the appropriately sized trowel starting at the center of the room and working outwards.
- Maintain a uniform spread rate.
- Roll thoroughly in both directions with a 3-section
  100 LB roller immediately after flooring is installed.
  - Roll from middle of the room towards the walls to help minimize potential bubbles.
  - Inspect installation for bubbles as you work.
  - Use a hand roller in areas that cannot be reached with larger roller.
- Avoid double gluing.
- Avoid using the floor after completing the installation for 48 to 72 hours.
- Visually inspect installation to ensure that material has not shifted, and that adhesive has not been squeezed out of joints or compressed onto surface.
- Clean excess adhesive or adhesive residue from the surface of the material per adhesive manufacturer's recommendations.

## **12. CARE AND MAINTENANCE**

- Place floor mats and rugs at main entrances to minimize abrasive debris that may be introduced to the floor.
- Place protective pads under furniture legs and other movable furniture.
- Use protective mats under wheeled office-type chairs.
- In cases of wheel chair use take care to remove embedded debris from tires when entering the home and use protective mats under high use areas.
- Avoid using lacquers, polishes, waxes or detergentbased cleaners as they will leave a film/residue on the surface of your floors and may cause damage beyond repair.
- Do not apply abrasive or solvent based cleaners directly to flooring material.
- Avoid using furniture feet and rug pads that contain rubber as they can damage the floor surface.

- Avoid dragging heavy appliances or furniture over an unprotected floor.
- Use care when handling sharp, hot and heavy objects as these can damage the floor if dropped.
- For daily cleaning, use a dust mop, broom or vacuum with hard surface attachment to remove dust, loose dirt or debris.
- For more thorough cleaning, where a cleaning solution may be required, use a water-based floor cleaner.
- To apply cleaner to the floor we recommend using a misting bottle, applying the cleaner to an area and then wiping with a cloth or mop.