

## INSTALLATION INSTRUCTIONS

### 1. SURFACE PREPARATION

It is recommended that all parties consult Mondo's current **Surface Preparation** manual for detailed procedures, additional recommendations and information on surfaces not addressed in this document (for example, wood).

#### 1.1 General Contractor (GC)

- a) Flooring **installation will not commence until the building is enclosed** and all other trades have completed their work.
- b) **New concrete must be allowed to cure a minimum of 28 days** (min. 3000psi compressive strength). However, consider that drying time is typically 4 weeks for every 1" thickness of slab (Example: a 6" slab will take around 24 weeks to adequately dry).
- c) Concrete must be smooth and level within a tolerance of 1/8" (3mm) in a 10' (3.05m) radius. *Mondo does not recognize the "F" numbers: FF (floor flatness) and FL (floor levelness).* Minor surface cracks or grooves must be filled with a good quality Portland cement based patching or leveling compound (such as Mapei or Ardex). High spots, bumps and peaks must be repaired prior to floor covering installation. Mondo recommends a magnesium trowel finish. **Note that while a smooth surface is desired, a shiny, slick, non-porous or over-porous slab is not acceptable and will require additional preparation prior to floor covering installation. Once the concrete surface preparation is complete, you should have a CSP (Concrete Surface Profile) of about 1.**
- d) GC is responsible for providing finished concrete that is properly prepared and ready to receive resilient floor covering. Concrete slabs must be dry, sufficiently porous, smooth, clean and free of bond inhibitors (paint, wax, dust, oil or grease, sealers or curing agents, surface hardeners, solvents, asphalt, old adhesive residues, etc.). Concrete surfaces that are powdery or scaly are not acceptable. **Contaminants are to be mechanically abated**, such as light to medium shot-blasting (ICRI CSP #3 to #5 profile). **Do not use abatement chemicals.** *NOTE: Advise flooring contractor, in writing, of any contaminants that were removed so that removal effectiveness can be verified with a bond test.*
- e) GC to maintain stable room and subfloor temperatures prior to moisture testing and resilient floor covering installation, during the installation of the resilient floor covering, as well as a minimum of 48 hours after the installation of the resilient floor covering. Recommended ambient temperature range is between 65°F and 86°F (18°C and 30°C) and recommended ambient humidity control level should be between 35-55%. **Ensure HVAC unit is operational for controlled temperature and humidity, for the purpose of accurate moisture testing results and stable ambient conditions during installation.**
- f) Concrete slab must be free of any hydrostatic pressure and/or other types of moisture-related problems. **Moisture and alkalinity tests must be performed on all concrete slabs, under in-service conditions (HVAC must be operational for at least 7 days prior to testing).** Ensure a concrete surface pH range of 7 to 10; readings below 7 and in excess of 10 have been known to affect some adhesives. When testing moisture vapor emissions using anhydrous calcium chloride (respecting ASTM F1869 standard), vapors must not exceed the specified adhesive's tolerance. When testing relative humidity with in-situ probes (respecting ASTM F2170 standard), relative humidity must not exceed the specified adhesive's tolerance. **WARNING: Moisture tests will help confirm whether a concrete slab is dry enough to proceed with the installation of a resilient floor covering, but it does not mean the slab will always**

remain dry. Mondo will not guarantee the adhesion of any of its resilient floor coverings to a concrete slab with relative humidity and/or moisture vapor emissions rates exceeding the tolerance of the specified adhesive.

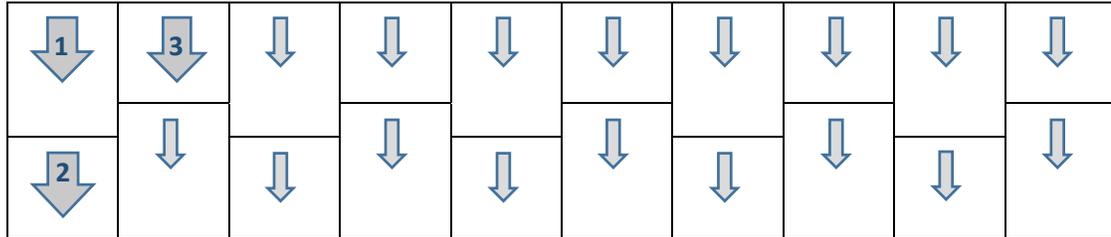
## 1.2 Flooring Contractor/Subcontractor

- a) **DO NOT proceed with installation of floor covering materials until all jobsite conditions are met and surface preparation is complete.**
- b) Thoroughly inspect concrete surface for any visible defects (such as cracks, bumps, rough areas or variations in levelness, etc.). Immediately report defects in writing to the Project Manager and GC. Defects must be corrected prior to installation.
- c) **Confirm moisture and alkalinity test results** and verify their suitability with all preparation products and adhesives specified. Safely keep records of all test results.
- d) **Confirm concrete surface is free from any contaminant/bond reducer** (paint, wax, dust, old adhesives, etc.) and ready to receive resilient floor covering materials. Refer to point e) located on page 1.
- e) Always store rolls of floor covering upright on a dry, clean and flat surface. Climate controlled storage is recommended; storage temperature must not be below 55°F (13°C) or exceed 100°F (38°C). Protect floor covering and accessories from damage, including exposure to harmful weather conditions. Products should not suffer damage during handling (such as dents, scratches, edge chipping, warping, etc.). **WARNING: Avoid prolonged storage or additional material trimming may be required.**
- f) Vacuum entire room prior to installation (remove dust, loose dirt and debris). **DO NOT use sweeping compounds.** If desired, use damp (not wet) sawdust to help with sweeping.
- g) Allow all floor coverings, adhesives and accessories to acclimate to site temperature prior to their use and installation.
- h) **Before you proceed with the installation, verify that all accessories and floor covering materials received are as specified for the project** (verify physical characteristics such as type, color, thickness, format, dimensions, etc.). Ensure there are no apparent defects/imperfections or color variations prior to installation. **WARNING: NO CLAIMS WILL BE ACCEPTED AFTER THE MATERIAL HAS BEEN INSTALLED.**

## 2 INSTALLING THE SHOCK PAD (BASELAST EX)

- a) Square the room and make the first chalk line down the center of the room parallel to the length of the room.
- b) **Unroll the material in the same direction and follow the numbered roll sequence**, following a recommended “ashlar” pattern layout (displayed below). Allow material to relax overnight (12 hours or longer if needed; colder building temperatures may result in a longer relaxation period).

LAYOUT - ASHLAR PATTERN



- c) Dry lay and cut-to-fit all material to be installed on a given day prior to adhesion. This includes all perimeters, columns, doorways, etc., that are within the space.
- d) End seams should be staggered and overlapped approximately 6" (15cm). The first edge of the seam must be trimmed a MINIMUM of 3" (7.6cm) with the help of a good straightedge. Then use the first straight cut side as a guide, cutting your second edge with the help of a straightedge and making sure to leave a 3/16" (~1/2cm ) overlap to make a tight compression seam.
- e) Long seams do not need to be trimmed (unless damaged in some way). Ensure they remain overlapped 3/16" (~1/2cm) to make tight compression seams.
- f) **All cuts must be slightly beveled (<5°)** to make sure that the seams will close without applying too much pressure. However, work with care as too much bevel can result in a peaking or falling seam while reverse beveling will cause gapped seams. **A proper cut should be made in multiple passes;** the first pass should cut straight down 1/8" depth using a utility knife and the second pass should cut at a slightly beveled angle using a hook blade. Experienced installers may choose to use other types of cutting tools but end results should be the same as required.
- g) End seams must be adjusted without applying too much pressure, while ensuring that they are perfectly closed. **Pressured seams will cause undesired peaking.**
- h) Jobsite and concrete slab conditions can affect adhesive spread rates; it may be necessary to adjust trowel size or perform additional surface preparation. It is recommended to **replace trowels periodically** to ensure the teeth of the trowel do not get worn-down and that the adhesive spread remains consistent. **Use a 1/16" x 1/16" 3/32" trowel with U-shaped notches to install the Baselast EX shock pad.**
- i) **Install Baselast EX on concrete slab with Mondo PU 105 polyurethane adhesive.** Prior to use, refer to the specified adhesive's current technical data sheet for detailed instructions. **WARNING: It is highly recommended to perform a bond test on all surfaces that will receive resilient floor covering** (refer to Mondo's Surface Preparation manual for detailed bond test instructions), verifying that bond strength is adequate. Create a mixing station for the adhesive, carefully selecting a space away from the installation area to avoid spills and splatter onto the materials; demark and protect mixing station with a 6' x 6' scrap piece of material, Kraft paper, plastic or other suitable item. Mondo PU 105 is a two component reactive adhesive so you will need to pour the small container of Part B into the larger pail of Part A. **The complete contents of both parts of the adhesive must be used at once.** Using a variable speed mixer (6 amps minimum), combine until a homogeneous, smooth and creamy consistency is obtained (this should not take more than 2 min.). **WARNING: Improper mixing may result in a weak bond and over mixing will cause the catalyst to set up too fast (thus reducing pot life and entrapping**

**air which may also reduce bond).** The **adhesive must be applied immediately after mixing**, otherwise it will thicken and be much harder to trowel.

- j) Roll back the Baselast EX material from an end (head) seam to the middle of the roll length. **Do not “flop” back material.** *NOTE: If you prefer, you may also choose to fold the material back as opposed to rolling it back, but be mindful not to create any folding creases.*
- k) When starting the installation of the first row of material, apply adhesive evenly up to 2” (5cm) from both edges of the long seams (current and adjacent roll) AND stop 12” (30cm) before the head (end) seam. The head seam will be glued last. Special care must be taken so that the adhesive is not applied too thinly.
- l) **Carefully place material into the wet adhesive; never “flop” material into the wet adhesive** as this can cause both adhesive displacement and entrapment of air bubbles. Confirm proper adhesive transfer by periodically lifting the floor covering material to inspect its backing for a **minimum of 90% adhesive transfer.**
- m) When starting the installation of the second row of material, apply adhesive underneath the previous long seam that needs to be completed first (the first row with the 2” that was left unglued) and then up to 2” (5cm) from the next adjacent row.
- n) **We recommend that you manually work the seams so that they are perfectly flat and tight** (butted together and never pressured to avoid peaking seams).
- o) **Immediately remove any dropped or oozed adhesives with a damp cloth while the adhesive is still fresh.** Dried reactive adhesives are very difficult to remove. Mondo only recommends using denatured alcohol; **never use solvent based products to remove spills** as residues could affect the adhesion of the MondoArmor impact layer to the Baselast EX shock pad’s surface.
- p) At the end of the day, stop the installation in the center of a shot (6” or 15cm minimum from material edge) and NOT at a seam. **DO NOT stop at a seam edge.** When commencing work again the next day, make sure to get adhesive all the way back to the adhesive line from the day before.
- q) **Weights will need to be applied over every seam.** Prior to applying the weights, make sure that your seams are flat and tight, manually work as needed for best results, using 2” (5cm) masking tape to help close any small gaps in the seams and to keep material in place while adhesive sets. End and head seams have more “shape” memory from being rolled; **ALWAYS apply masking tape to both head and end seams to keep them perfectly closed** until the adhesive has cured. **NEVER use duct tape.** Duct tape will chemically react with the floor covering materials and leave permanent surface residue/stains.
- r) **Use a lightweight 100lb (45kg) roller to eliminate any air bubbles** that could remain trapped between the concrete surface and floor covering materials. Roll in multiple directions, first rolling across width then along the roll length.
- s) **Using grey concrete utility bricks (2” x 4” x 8”), COMPLETELY COVER SEAM WITH WEIGHTS. Do not substitute with colored bricks.** Line up 1 brick high for long (side) seams and carefully stack 2 bricks high over every end/head seams so that they touch each other on either side. Keep weights on the seams for 12hr to 24hr, depending on ambient conditions and adhesive curing rate. Weights are used to prevent material peaking at the seams; it’s necessary to also brick any perimeters and edges

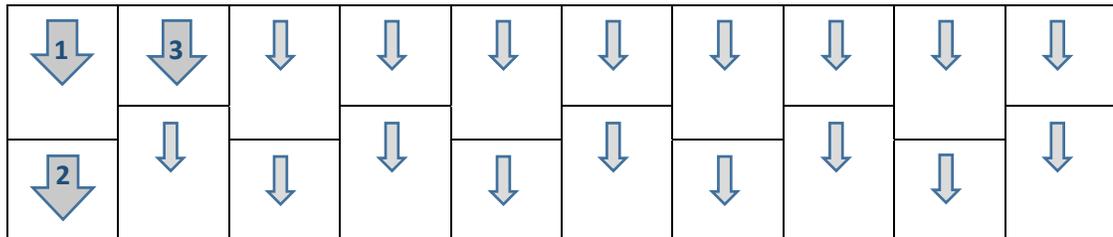
(doorways, walls, columns, sleeves, etc.). **WARNING: Brick quantities are suggestive and specific site and material conditions could necessitate additional bricks.** Enough bricks should be used so that the seams remain perfectly flat into the adhesive as it cures and dries. Never substitute grey utility bricks for pieces of woods, boxes of other floor covering materials, bags of sand or patching compounds, cinder blocks, etc. Grey concrete utility bricks provide the proper shape and weight concentration needed at each seam.

- t) **No foot traffic shall be allowed onto the floor covering materials for a period of 24 hours after the installation. Prohibit heavy traffic or rolling loads for a period of 72 hours after the installation.** You can use 1/8" Masonite or 1/4" plywood to protect the surface of the floor covering materials during this 24hr to 72hr period.
- u) **Wait a minimum of 12 hours after the installation of the Baselast EX shock pad prior to the installation of the MondoArmor impact layer.**

**3 INSTALLING THE IMPACT LAYER (MONDOARMOR)**

- a) Clean off any debris and vacuum surface of Baselast EX shock pad prior to installation of MondoArmor impact layer.
- b) **Unroll the material in the same direction and follow the numbered roll sequence,** following a recommended "ashlar" pattern layout (displayed below). **Scatter head seams to avoid having a MondoArmor head seam directly over a Baselast EX head seam.** Allow material to relax overnight (12 hours or longer if needed; colder building temperatures may result in a longer relaxation period).

**LAYOUT - ASHLAR PATTERN**



- c) Dry lay and cut-to-fit all material to be installed on a given day prior to adhesion. This includes all perimeters, columns, doorways, etc., that are within the space. *NOTE: if a multiple color layout is to be made, double-checking measurements will avoid miscalculations.*
- d) End seams should be staggered and overlapped approximately 6" (15cm). The first edge of the seam must be trimmed a MINIMUM of 3" (7.6cm) with the help of a good straightedge. Then cut the second edge by using the first straight cut side as a guide.
- e) To make perfect long seams, the edges of the seams must be trimmed a MINIMUM of 1" (1.75cm) with the help of a chalk line and a straightedge. Trim more if needed to obtain a nice flat seam.
- f) **All cuts must be slightly beveled (<5°)** to make sure that the seams will close without applying too much pressure. However, work with care as too much bevel can result in a peaking or falling seam while

reverse beveling will cause gapped seams. **A proper cut should be made in multiple passes;** the first pass should score the wear layer using a utility knife and the second pass should cut through the backing using a hook blade. Experienced installers may choose to use other types of cutting tools but end results should be the same as required.

- g) End seams must be adjusted without applying too much pressure, while ensuring that they are perfectly closed. **Pressured seams will cause undesired peaking.**
- h) Jobsite and concrete slab conditions can affect adhesive spread rates; it may be necessary to adjust trowel size or perform additional surface preparation. It is recommended to **replace trowels periodically** to ensure the teeth of the trowel do not get worn-down and that the adhesive spread remains consistent. **Use a 1/16" x 1/16" 3/32" trowel with U-shaped notches to install the MondoArmor impact layer.**
- i) **Install MondoArmor impact layer over Baselast EX shock pad using Mondo PU 105 polyurethane adhesive.** Prior to use, refer to the specified adhesive's current technical data sheet for detailed instructions. At your adhesive mixing station, pour the small container of Mondo PU 105 Part B into the larger pail of Mondo PU 105 Part A. **The complete contents of both parts of the adhesive must be used at once.** Using a variable speed mixer (6 amps minimum), combine until a homogeneous, smooth and creamy consistency is obtained (this should not take more than 2 min.). **WARNING: Improper mixing may result in a weak bond and over mixing will cause the catalyst to set up too fast (thus reducing pot life and entrapping air which may also reduce bond).** The adhesive must be applied immediately after mixing, otherwise it will thicken and be much harder to trowel.
- j) Roll back the MondoArmor material from an end (head) seam to the middle of the roll length. **Do not "flop" back material.** *NOTE: If you prefer, you may also choose to fold the material back as opposed to rolling it back, but be mindful not to create any folding creases.*
- k) When starting the installation of the first row of material, apply adhesive evenly up to 2" (5cm) from both edges of the long seams (current and adjacent roll) AND stop 12" (30cm) before the head (end) seam. The head seam will be glued last. Special care must be taken so that the adhesive is not applied too thinly.
- l) **Carefully place material into the wet adhesive; never "flop" material into the wet adhesive** as this can cause both adhesive displacement and entrapment of air bubbles. Confirm proper adhesive transfer by periodically lifting the floor covering material to inspect its backing for a **minimum of 90% adhesive transfer.**
- m) When starting the installation of the second row of material, apply adhesive underneath the previous long seam that needs to be completed first (the first row with the 2" that was left unglued) and then up to 2" (5cm) from the next adjacent row.
- n) **We recommend that you manually work the seams so that they are perfectly flat and tight** (butted together and never pressured to avoid peaking seams).
- o) **Immediately remove any dropped or oozed adhesives with a damp cloth while the adhesive is still fresh.** Dried reactive adhesives are very difficult to remove. Mondo only recommends using denatured alcohol; **never use solvent based products to remove spills** as they could discolor/damage the floor covering materials.

- p) At the end of the day, stop the installation in the center of a shot (6" or 15cm minimum from material edge) and NOT at a seam. **DO NOT stop at a seam edge.** When commencing work again the next day, make sure to get adhesive all the way back to the adhesive line from the day before.
- q) **Weights will need to be applied over every seam.** Prior to applying the weights, make sure that your seams are flat and tight, manually work as needed for best results, using 2" (5cm) masking tape to help close any small gaps in the seams and to keep material in place while adhesive sets. End and head seams have more "shape" memory from being rolled, so **ALWAYS apply masking tape to both head and end seams to keep them perfectly closed** until the adhesive has cured. **NEVER use duct tape.** Duct tape adhesive will chemically react with the floor covering materials and leave permanent surface residue/stains.
- r) **Use a lightweight 100lb (45kg) roller to eliminate any air bubbles** that could remain trapped between the Baselast EX shock pad and MondoArmor impact layer. Roll in multiple directions, first rolling across width then along the roll length.
- s) **Using grey concrete utility bricks (2" x 4" x 8"), COMPLETELY COVER SEAM WITH WEIGHTS. Do not substitute with colored bricks. Line up 1 brick high for long (side) seams and carefully stack 3 bricks high over every end/head seams so that they touch each other on either side.** Keep weights on the seams for 12hr to 24hr, depending on ambient conditions and adhesive curing rate. Weights are used to prevent material peaking at the seams; it's necessary to also brick any perimeters and edges (doorways, walls, columns, sleeves, etc.). **WARNING: Brick quantities are suggestive and specific site and material conditions could necessitate additional bricks.** Enough bricks should be used so that the seams remain perfectly flat into the adhesive as it cures and dries. Never substitute grey utility bricks for pieces of woods, boxes of other floor covering materials, bags of sand or patching compounds, cinder blocks, etc. Grey concrete utility bricks provide the proper shape and weight concentration needed at each seam.
- t) **No foot traffic shall be allowed onto the floor covering materials for a period of 24 hours after the installation. Prohibit heavy traffic or rolling loads for a period of 72 hours after the installation.** You can use 1/8" Masonite or 1/4" plywood to protect the surface of the floor covering materials during this 24hr to 72hr period.
- u) **Do not perform initial surface cleaning until a minimum of 72 hours after the athletic floor covering system has been fully installed.** Always refer to Mondo's current maintenance guidelines for detailed instructions on proper care of MondoArmor.

#### 4 DISCLAIMER

These instructions conform to commonly accepted techniques for the installation of resilient floor covering, including installation and use of Mondo floor coverings. However, Mondo will not accept any liability whatsoever for any incorrect implementation of these instructions nor for any failure of equipment, paint & primers, patching and leveling compounds, adhesives or any other product not manufactured by Mondo that may be referenced in these instructions, nor for any adverse handling, climatic or environmental conditions that may affect the installation and/or performance of the floor covering materials.

The above installation recommendations are provided for general guidance only. Mondo assumes no responsibility neither for actual work performed nor for loss or damage that may result from the use of this information due to variations of processing or working conditions outside of our control. Users are advised to confirm suitability of conditions and products by performing their own tests and verifications.

**Mondo's standard warranty only extends to quality and performance of its floor coverings.**

**WARNING: Should you have any concerns or be unsure about installation conditions or procedures, please consult Mondo's Technical Department:**

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