

# MultiPLY<sup>®</sup>

**FLOORING UNDERLAYMENT**

*“North America’s oldest and most trusted flooring underlayment”*



Limited  
**LIFETIME**  
Warranty

# Performance Hardwood Veneer Flooring Underlayment

*Ideal for vinyl, ceramic tile, carpet, wood, and laminate floors.*

## *Why do I need a flooring underlayment?*

Whether it's a new floor covering you are installing either in a home or commercial building, the assurance your investment will carry well into the future depends on the decisions you make today. The selection of a quality flooring underlayment matters because while soon "out of sight", it is under foot for years, helping to maintain the floor's original appearance.

## *What does an underlayment provide?*

Floor covering manufacturers require a smooth solid foundation be provided underneath that will perform equally well over the life of their product.

Multiply, a quality high-performance hardwood underlayment panel, meets or exceeds all vinyl flooring manufacturers' requirements.



## *Why Multiply® brand?*

### **Proven products mean peace of mind...**

1. Multiply panels are calibrated to offer accurate thickness and squareness and provide a precision fit for easy assembly.
2. Multiply panels are made by a single dedicated North American mill to assure consistency from panel to panel EVERY TIME.
3. Professional installers and flooring retailers trust Multiply because of decades of proven trouble-free performance.
4. Multiply is backed by North America's oldest and most trusted hardwood underlayment manufacturer.





# PREPARATION - Underlayment and Subfloor



## ► TOOLS FOR THE JOB

Tools found in the Professional Installer's toolbox:

1. Belt sander or commercial floor sander – complete with dust bags.
2. Pneumatic powered Narrow Crown Stapler and air compressor or manual mallet-actuated stapler. Alternatively, an electric screwdriver or claw hammer, depending on the fastener used.
3. Heavy-duty utility knife or electric trim saw to cut panels.
4. Vacuum cleaner and broom.
5. Measuring tape and carpenter's pencil.
6. Moisture meter – especially important when installing in new construction and over crawl spaces.

## ► MATERIAL FOR THE JOB

### 1. Calculating Multiply Underlayment

One panel covers 16 square feet. Measure the floor and add another 5% to 10% to allow for cuts and scrap material.

### 2. Selecting the Fasteners

Tight fastening is extremely important to help prevent panels from lifting loose. Three methods are approved however staples are fast to install, lower cost and set neatly to avoid patching indentations.

Fastener must recess 1/16" below the surface and penetrate 75% to 90% of the subfloor assembly but not protrude through the bottom.

Select a coated fastener known not to stain vinyl, stone, or marble floor covering.

**Staples:** (preferred fastener for vinyl floors)  
Narrow crown chisel point staple, 7/32" or 1/4" – either clear polymer coated or galvanized.

**Nails:** Ring shank or annular-grooved, galvanized flooring nails with a 3/16" diameter head. Recess 1/16" and patch over.

**Screws:** Flathead countersunk wood screws.  
Do not use drywall screws. Recess 1/16" and patch over.

### 3. Using Patch / Fillers

- It is Multiply's experience that filling or flashing joints between panels with patch may increase the risk of tunneling and/or ridging over these joints – use only when absolutely necessary.
- **We recommend all normal panel joints be sanded and not patched.** If gaps, chips, etc. occur, use a cement-based high-solid, non-shrinking acrylic patching compound approved by the manufacturer for flooring underlayment applications. Do NOT use gypsum-based patching compounds. Use a brand name product and manufacturer's acrylic latex additive for improved results versus mixing with water. See ACCLIMATION - Moisture & Movement below.
- Avoid excessive use of patching compound and adhesive material and do NOT flood underlayment surface with a self leveling compound.

### 4. Safety Equipment

Warning: Wood dust can cause eye and breathing problems: wear protective gear:

- Dust Mask
- Safety glasses or eye goggles
- Kneepads

## ► PEOPLE FOR THE JOB

Installing Multiply flooring underlayment is quick and easy. Plan carefully and follow the step-by-step instructions for good results. But if a lack of time or experience has you in doubt... your local PRO Flooring Contractor can provide you "peace of mind" by bringing your project in on time and budget. They provide:

- Knowledge of national and local building codes.
- Necessary tools and equipment.
- Experience using approved installation techniques.
- A guarantee on workmanship.

### Note:

- Not recommended for on slab construction – direct installation on concrete – over radiant heated floors that will exceed 85°F (29°C) – or crawl spaces less than 18".

## ► ACCLIMATION

**Acclimate panels 24 hours in the room and 48 hours in more extreme conditions.**

Floor joists and subfloors expand and contract with changes in humidity and temperature therefore Multiply underlayment and the subfloor assemblies must be adjusted to the surrounding room conditions that will exist during occupancy.

- Use caution when carrying and storing Multiply underlayment in extreme conditions.
- Separate and store panels vertically around the room or flat with a spacer between each panel to allow air passage on all sides.
- Avoid storing near hot or cold spots such as windows, air registers and exterior doors.



The room must be kept dry and ventilated and at a constant temperature of 70°F (21°C) during and at least 48 hours before and after installation.

Before installation, whether in new construction or an existing floor in a renovation, it is highly recommended the moisture content of the subfloor be measured using a moisture meter to determine site conditions are right for installation. Refer to the chart below:

<b>12% or less</b>	<b>Acceptable - Proceed with installation.</b>
<b>13% – 14%</b>	<b>Conditions exist that may cause “Seam Telegraphing”.</b>
<b>15% or over</b>	<b>Installation NOT recommended! Dry out floor before proceeding.</b>

**CAUTION: A word about Seam “Telegraphing”**

**Seam telegraphing problems are not the result of defective underlayment panels but can usually be traced to two main causes:**

1. Improper installation including failure to sand all seams level or using excessive patching compound.
2. Changing site conditions including expansion from moisture entrapment or movement in the subfloor.

**► SUBFLOOR**

The subfloor assembly must meet local Building Codes, Regulations and perform to an L/360 rating. An L/480 rating is recommended to reduce deflection and vibration.

- Ensure the existing subfloor is completely dry, structurally sound, fastened tightly, level, and all seams and surfaces sanded level.
- Re-set protruding nails and screws.
- Sand all seams and surfaces level.
- Check for adequate floor joist cross bracing.
- Insulate areas of the subfloor between the floor joists with 2” insulation when panels sit close to either a furnace or rest closely over hot air ducts.
- Sweep and vacuum all dust and debris thoroughly.

**► CRAWL SPACES**

An unprepared crawl space in a building or mobile home is very susceptible to humidity and temperature variations that cause subfloor and underlayment to expand. These conditions may force joints together and cup upwards, to cause seam “telegraphing”.

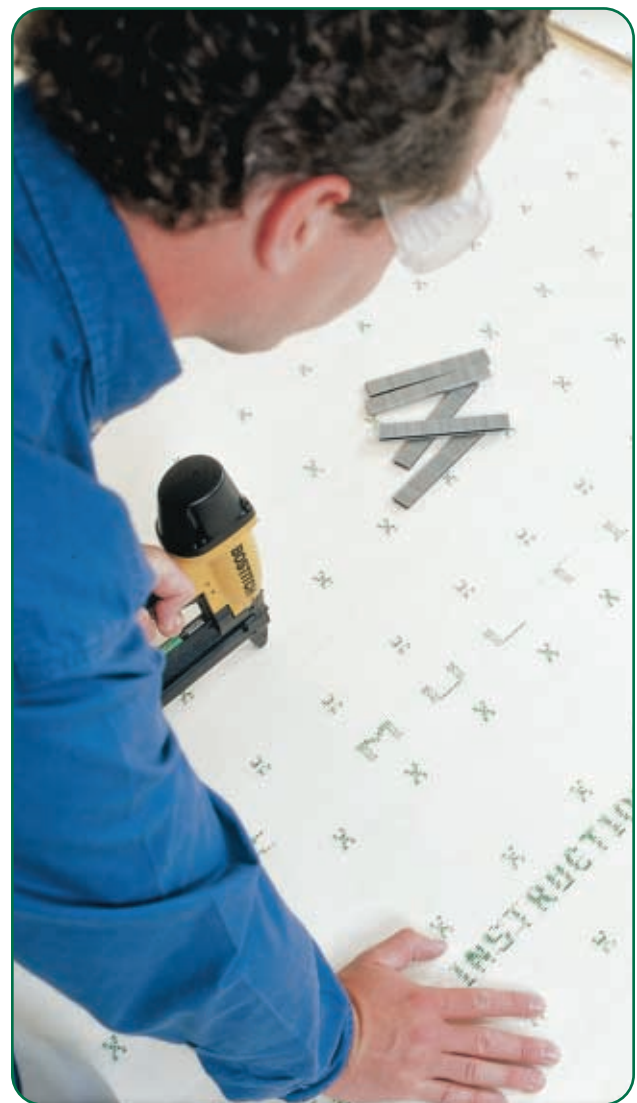
**Check and assure the following site conditions are met:**

- A sealed vapor barrier must be on the ground and adequate cross ventilation provided along walls.
- A minimum 18” clearance must be provided between the bottom of floor joists and ground.
- Landscape grading and rain troughs must be provided to assure moisture is moved away from foundation walls.

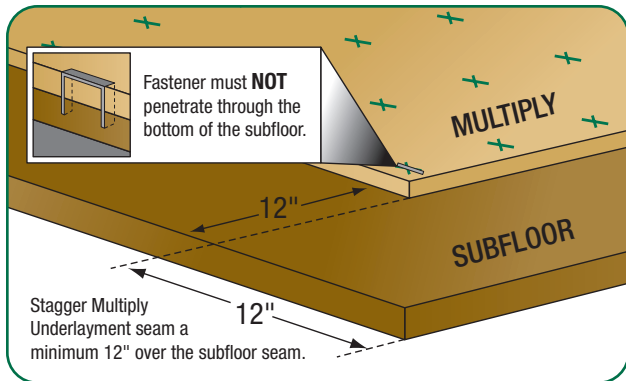
**If site conditions cannot be corrected, contact the vinyl floor covering manufacturer for recommendations or consider installing a perimeter-fastened vinyl system instead of a fully adhered system.**

**► OVER EXISTING VINYL FLOORS**

Most vinyl floor covering manufacturers permit the installation of a new floor covering over a single layer provided an underlayment is installed. Assure the old vinyl floor covering is well bonded to the subfloor.



# INSTALLATION - Vinyl Sheet & Tile



- Keep factory edges together and use hand cut edges against walls, etc.
- **Do NOT jam panels together.** Gently butt together without leaving a gap.
- Recess fastener heads 1/16" and assure 75% to 90% penetration into the subfloor assembly. Do NOT penetrate through the bottom of the subfloor.
- Avoid using panel pieces less than 12" except when cutting in to allow for floor fixtures.

## ► STEP 1 SET THE FIRST PANEL

- Start at one corner of the room along the longest line and **install one panel at a time.**
- Set panel grain at right angles to the floor joists with the grain running in the same direction.
- Offset panel edges from the subfloor edges by a minimum of 12".
- Maintain a minimum 1/4" gap along all walls and vertical surfaces for expansion.
- **Do NOT four-corner fasten panel first.** Start from a panel corner and fasten row by row to the opposite side.
- Use full body weight over the area being fastened to assure firm contact with the subfloor.
- Fasten panels every 2" along the edges and 4" across the field, on every X.
- Position fasteners 3/8" to 1/2" in from panel edges and apply staples across the grain.



Stagger Multiply Underlayment seam a minimum 12" over the subfloor seam.

## ► STEP 2 SET ALL OTHER PANELS

- Offset rows of panels 12" minimum – ensure four panel corners never meet at an intersection.
- Lay all panels with the grain running in the same direction.
- Cut panels to size with a trim saw.



Lay-up and fasten one panel at a time.



Recess fastener heads 1/16" and assure 75% to 90% penetration into the subfloor.



### ► STEP 3 PATCHING

Use patching compound only where necessary. It has been the Industry experience patching and flashing joints between panels increases the risk of seam telegraphing, tunneling and ridging. With careful installation patching can be avoided.

- Fill voids 1/16" or greater, gaps, chipped edges, dents and gouges.
- Use a patching compound approved by the vinyl flooring manufacturer. This is usually a hard-setting acrylic cement based product.
- Patch must be completely cured before sanding.

**Caution:** Do NOT use an electric fan to speed up the drying time. This creates a "surface cure" that, while dry enough to sand, traps water below the surface and prevents a proper cure. The panel edges absorb the moisture, expand slightly and force the patch out of the joint as a bead that can later be seen through the vinyl.



*Sand all seams at a 45° angle approximately 8" to 12" in from the edges.*

### ► STEP 4 SANDING

- **Sand all seams.** Leveling seam surfaces between all panel edges is critical to help avoid seam telegraphing.
- Use either an electric belt sander or commercial floor sander and begin with 80 to 100 grit sandpaper and finish with 120 grit sandpaper.
- Sand all seams at a 45° angle approximately 8" in from the edges. Check along all seams for faded X's to assure every edge has been sanded.
- Avoid over sanding and avoid dishing or cupping of surfaces.
- Hand sanding is not sufficient.
- Sweep and vacuum all dust and debris thoroughly.

**WARNING: Wood dust can cause eye and breathing problems. Always place safety first and wear a dust mask and safety glasses or eye goggles.**

### ► STEP 5 FINAL CHECK

Take the time to thoroughly check all surfaces and seams for smoothness. Run a straight edge or hand over all seams and assure all fasteners are set. Correct any irregularities.

Keep the Multiply flooring underlayment panels clean and dry until the new floor covering is installed.



### ► INSTALLING THE NEW VINYL FLOOR COVERING

Proceed with the installation carefully following instructions provided by the vinyl flooring manufacturer and adhesive manufacturer.

- Use a properly notched and maintained trowel and apply sufficient adhesive as directed. Too much adhesive may cause bubbles to appear or panels to swell.
- Do NOT leave adhesive open too long since its performance could be reduced.
- Roll the new vinyl flooring with a 100-pound roller in both directions to establish a firm contact between the vinyl floor covering and underlayment.
- Keep traffic and furniture movement off the floor for 24 hours or until the adhesive has fully bonded.
- HINT: Use a Multiply panel to protect the new floor while sliding heavy appliances into place.

### ► AVOID GOING WRONG...

**DO NOT** install panels without acclimating first.

**DO NOT** fasten a panel down by the four corners first then go back to fill "the field" later.

**DO NOT** lay more than one panel at a time.

**DO NOT** place panel seams directly over subfloor seams.

**DO NOT** allow the corner of panels to meet in an intersection.

**DO NOT** leave gaps between panels. (Except ceramic tile and general purpose panels - leave a 1/8" gap).

**DO NOT** patch normal edge joints where there are no gaps.

**DO NOT** fail to sand all seams.

**DO NOT** work without wearing safety equipment - a dust mask for sanding and protective safety goggles when stapling.

# INSTALLATION - Ceramic Tile

## ► MATERIAL

Treatment of 1/8" expansion control joints maintained between all panels will be specified by the manufacturer of the mortar. In absence of this information, apply the mortar in one step without fiber tape or working the mortar deep into the joint.

The 1/4" gap left along perimeter walls and vertical surfaces to allow for horizontal expansion may either be left open or filled with a color coordinated Tub & Tile silicone in two to three weeks if desired.

**Mortar:** Use EGP latex-portland cement mortars which are approved by the material manufacturer for bonding to wood underlayments - ANSI A118.11 to prepare and set the mortar bed.

**Grout:** Grout material meeting the ANSI S118.6 standard is recommended.

## ► SUBFLOOR

The subfloor and underlayment must be a minimum 1-1/8" nominal thickness, structurally sound, cross braced between joists, and meet a deflection rating of L/480 under ceramic tile and L/720 under marble.

- Surfaces must be structurally sound, dry and free of contaminants such as sealers, cleaning compounds, oil, dirt and dust, etc.
- Deflection is best pre-checked with a live load and measured with a laser instrument.
- Multiply 3/8" is recommended for ceramic tile applications for improved joist-to-joist stiffness.

## ► STEP 1 SET THE FIRST PANEL

- Choose a corner along a straight long line and begin to install and fasten one panel at a time.
- Install all panels with the grain set at right angles to the floor joists.
- Offset panel edge from the subfloor edges by a minimum of 12" – all panels.
- Leave a 1/8" wide space between panels and 1/4" wide space between panels and any restraining surface which they abut, such as columns or perimeter walls, to allow for expansion.



Trowel mortar directly onto Multiply underlayment.



**Note: Tile must not be installed on Multiply underlayment with epoxy or modified epoxy emulsion mortar unless it is installed with 1/4" gaps between panels**

- Start from a panel corner and fasten row by row to the opposite side. Do NOT four-corner fasten first.
- Use full body weight over the area being fastened to assure firm contact with the subfloor.
- Fasten panels every 2" along the edges and 4" across the field, on every X.
- Position fasteners 3/8" to 1/2" in from panel edges.

## ► STEP 2 SET ALL OTHER PANELS

- Ring shank or annular-grooved, galvanized flooring nails with a 3/16" diameter head is the preferred fastener for ceramic tile. Stainless steel or polymer coated staples and non-staining screws are also acceptable.
- Recess fastener heads 1/16" and assure 75% to 90% penetration into the subfloor assembly. Do NOT penetrate through the bottom of the subfloor and avoid driving into floor joists to prevent pop-ups.

- Stagger panel joints in each row 12" minimum – ensure four panel corners never meet at an intersection.
- Lay all panels with the grain running in the same direction.
- Cut panels to size with a trim saw.
- Keep factory edges together and use hand cut edges against walls etc.
- Avoid using panel pieces less than 12" except for cutting in to allow for floor fixtures.

## ► INSTALLATION - MORTAR

Mix EGP latex-portland cement mortar in accordance with the following directions, unless mortar manufacturer's instructions differ:

1. Add dry ingredients to proper amount of water or liquid latex recommended by the manufacturer.
2. Mix and slake according to the manufacturer's instructions, mix slowly and thoroughly and let mortar stand for 15 minutes; then remix. Do Not mix with high speed mechanical mixer. If used, mechanical mixer must be 300 RPM or lower. Do Not add water, latex, additional mortar, or other ingredients after slaking period.
3. Mortar consistency shall be such that when applied with the recommended notched trowel to Multiply panels, the ridges formed in the mortar shall not flow or slump.
4. During use, remix mortar occasionally. Additional liquid or fresh materials shall not be added after initial mixing. Mortar shall not be used after initial set.
5. Key the setting material into Multiply panels by applying mortar with flat side of trowel over an area no greater than can be covered with tile before the mortar skins over, using a notched trowel of type recommended by mortar manufacturer, comb mortar to obtain even setting bed. Cover surface uniformly with no bare spots, and with sufficient mortar to ensure a minimum mortar thickness of 3/32" between tiles and Multiply panels after tile has been embedded. Tile shall not be applied to skinned-over mortar.

## ► INSTALLATION – SETTING TILE

1. Press tile into freshly combed mortar, insuring mortar contact with tile while maintaining accurate joint alignment and spacing. Keep an adequate joint depth open for grouting.
2. Thoroughly embed all tile or tile assemblies to obtain maximum contact and penetration of mortar into the back of each tile, or back of each tile and back mounting material. Average contact area shall not be less than 80% when no less than three tiles or tile assemblies are removed for inspection.
3. Certain rib-backed or button-backed tile may require trowelling a layer of mortar on the back of each tile prior to placing on the combed mortar bed.

**For additional information and support consult the Tile Council of America, Inc. Handbook for Ceramic Tile Installation or visit their web site at: [www.tileusa.com](http://www.tileusa.com)**

## ► LIMITED LIFETIME WARRANTY

**A. Manufacturing Warranty.** Multiply Forest Products, Inc. warrants to the original purchaser of the Multiply Underlayment panels ("Buyer") that Multiply Underlayment panels will be manufactured to the following standards:

Sizes:	48" wide x 48" long; ± 1/32" per side;
Thickness:	1/4" and 3/8" panels calibrated to ± 1/32";
Squareness:	To within 1/32" on the diagonal;
Construction:	3, 5, or 7 plies, with no core overlaps and no delaminated areas;
Glue:	Exterior grade phenolic glue (passes 2-hour boil test);
Face Grade:	Sanded B grade with no open knots or other defects; open knots will be plugged with solid hardwood veneer and sanded.

**Buyer shall inspect the Multiply Underlayment panels before installation.** Installation of any Multiply Underlayment panels shall operate as acceptance in their installed condition.

**B. Use Warranty.** Multiply Forest Products, Inc. warrants to the first owner of the building into which the Multiply Underlayment panels are installed ("Owner") for as long as Owner owns the building that when correctly installed and handled in accordance with these instructions that under normal use Multiply Underlayment panels:

- Will provide a suitable subsurface for the installation of the following decorative flooring materials: sheet vinyl, vinyl tile, ceramic tile, carpet, laminates and wood floors;
- Will hold sheet vinyl, vinyl tile, ceramic tile, carpet, laminates and wood flooring firmly in place when such floor covering is installed according to the flooring covering manufacturer's installation instructions;
- Will not split or crack when fastened;
- Will not delaminate, buckle or warp; and
- Will not cause discoloration or staining of the floor coverings.

### Exclusions and Limitations; Duration.

Multiply Forest Products, Inc. Limited Warranty does not cover defects and damages arising from:

- Improper or poor installation;
- Damage, abuse or misuse of the Multiply Underlayment panels after purchase;
- Any condition resulting from other than ordinary wear and usage;
- Tears, ruptures, or any other defect in the decorative floor covering;
- Use under heavy appliances or furniture, athletic equipment or other heavy weight loads; and
- Any condition resulting from faults in the construction of the building, faulty plumbing, standing or evaporating moisture, fires, floods, or other disasters.

When properly installed and in an acceptable environment, Multiply Underlayment panels will not contribute to telegraphing of seams through floor coverings. Seam telegraphing of vinyl floors is not covered unless the Multiply Underlayment panels have failed to comply with the Use Warranty.

The Manufacturing Warranty is valid only before Buyer installs the Multiply Underlayment panels. All claims for any breach of the Manufacturing Warranty shall terminate upon installation of the Multiply Underlayment panels.

The Use Warranty is valid for as long as Owner owns the building in which Multiply Underlayment panels are installed and only for the first flooring applying over the Multiply Underlayment panels. The Use Warranty is not valid in the event of any reuse of the Multiply Underlayment panels.

### Exclusions and Disclaimer of Certain Warranties.

**THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, EXCEPT THIS LIMITED LIFETIME WARRANTY. MULTIPLY FOREST PRODUCTS, INC. EXPRESSLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

### To Make a Warranty Claim.

**A. Manufacturing Warranty Claim.** Buyer must submit written notice as specified below of a Manufacturing Warranty Claim within 30 days after purchase and BEFORE installation. Multiply Forest Products, Inc. shall have 30 days after receipt of such notice to inspect the Multiply Underlayment panels prior to installation, alteration, change, or repair by Buyer.

**B. Use Warranty Claim.** Owner must submit written notice as specified below of a Use Warranty Claim not later than one year after Owner has reason to know that the Multiply Underlayment panels have failed to comply with the Use Warranty. Multiply Forest Products, Inc. shall have 30 days after receipt of such notice to inspect the Multiply Underlayment panels prior to any alteration, change, or repair by Owner.

**C. Notice.** Written notice of a warranty claim shall be sent to the following address:

**Multiply Forest Products, Inc., P.O. Box 910, Nipigon, ON P0T 2J0 CANADA**

The written notice must provide the date and location of purchase, the date and location of installation (if applicable), the nature of the problem, and the name, address and telephone number of the person making the claim.

### Remedies.

In the event of a breach of this Limited Warranty, Multiply Forest Products, Inc. at its option will:

- Replace the defective Multiply Underlayment panels;
- Refund the purchase price of the defective Multiply Underlayment panels; or
- Reimburse Owner the reasonable cost (including installation cost, if any) for the affected floor covering.

This Limited Warranty gives you specific legal rights, and you may also have rights which vary from State to State or Province to Province.

### LIMITATIONS OF REMEDIES.

**MULTIPLY FOREST PRODUCTS, INC. SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL DAMAGES EXCEPT AS SPECIFICALLY LISTED ABOVE, AND SHALL NOT BE LIABLE IN ANY CIRCUMSTANCE FOR SPECIAL, INDIRECT, PUNITIVE, OR EXEMPLARY DAMAGES OR LOST PROFITS OF ANY KIND RESULTING FROM OR ARISING IN ANY WAY FROM ANY BREACH OF THIS LIMITED WARRANTY.**

### Arbitration.

Any and all claims arising under this Limited Warranty or otherwise out of the purchase or use of the Multiply Underlayment panels shall be subject to mandatory, binding arbitration under the authority of the American Arbitration Association.





# For professional results **EVERY TIME!**

*Provides a smooth durable surface for  
vinyl and ceramic tile, carpet and  
hardwood floors.*

## *Proven performance since 1956:*

- ✓ Nail pattern assures tight and accurate fastening.
- ✓ Moisture resistant exterior grade.
- ✓ Easy to handle 4' squares provide dimensional stability.
- ✓ Fast scoring and easy snap to size.
- ✓ Lifetime Limited Warranty.

## *Under **VINYL** sheet & tile floors:*

- ✓ Thick puncture resistant veneer face.
- ✓ Non-staining - guaranteed!
- ✓ Meets all vinyl manufacturers' specifications.

## *Under **CERAMIC** tile floors:*

- ✓ Adds up to 3 times more floor strength and fastener holding power than cement panels.
- ✓ Quick, clean and easy to install.

Multiply Forest Products, Inc.  
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