duradecor

polishedpro | 5.2mm Rigid Core
Installation Instructions

Limitations

The optimal operating temperature for use is between 40°F to 90°F (4°C to 32°C). Avoid prolonged exposure to direct sunlight or other heat sources where temperatures will exceed 90°F (32°C), as discoloration or damage may occur. This product is not suitable for heavy rolling loads or heavy commercial areas. Do not install in areas that may be subjected to sharp, pointed objects, such as stiletto heels, cleats or spikes. Do not allow product to be directly exposed to extreme heat sources, such as self-cleaning ovens or other high-heat equipment. Do not install outdoors or in areas that may be exposed to repeated and sustained UV/IR rays, as product may fade, discolor or experience excessive movement. Refer to the Material Usage Guide and, if applicable, the Wet Areas technical bulletin for a full list of acceptable areas and information about approved areas of use. Do not use rubber tires, casters or rubber-backed walk-off mats directly on the flooring surface, as permanent staining may occur. Do not install nails, screws, bolts, moldings, accessories or heavy fixed furniture, such as cabinets, counter tops, islands or commercial equipment, directly on, into or through the flooring material, as this may restrict the natural movement of the floor and cause gapping/buckling.

Copies of ASTM documents are available for purchase at www.astm.org.

Receiving Material & Storage

Remove all plastic and strapping from the product after delivery. Confirm that the flooring product color, style and quantity are correct, and check lot numbers, in the event you've received more than one. Carefully check all materials for shipping damage and note all damage on the bill of lading before accepting the delivery. Material accepted with visible shipping damage that is not reported on the bill of lading is not covered under warranty. The floor covering and accessories must be stored in dry indoors conditions between 40°F to 90°F (4°C to 32°C). Do not store outside (even in containers) and do not stack pallets.

Warning

All local, state, and federal regulations must be followed; this includes the removal of in-place asbestos flooring and adhesive, as well as any lead-containing materials. The Occupational Safety and Health Administration (OSHA) has exposure limits for people exposed to respirable crystalline silica; this requirement must be followed. Do not use solvent or citrus-based adhesive removers. When appropriate, follow the Resilient Floor Covering Institute's (RFCI) Recommended Work Practice for Removal of Existing Floor Covering and Adhesive. Always wear safety glasses and use respiratory protection or other safeguards to avoid inhaling any dust. The label, installation, and maintenance instructions along with the technical data sheet, limited warranty and any appropriate Safety Data Sheet (SDS) of all products must be read, understood, and followed prior to installation. Do not leave spills unattended - wipe up promptly, and allow the floor covering to dry before trafficking.

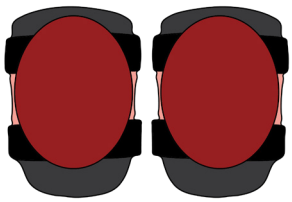
Documentation

Record and/or photograph the site conditions, test results, and any corrective measures taken. All relevant pre-installation documentation, as well original product invoices and associated shop drawings or project information, should be stored for the entire warranty period.

Site Conditions & Storage

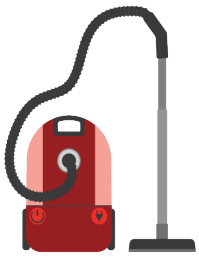
The prepared installation area must be fully enclosed and weather-tight. During the installation, any direct sunlight should be blocked using window treatments or other protection. The ambient temperature during installation must be >60°F (16°C), with a recommended maximum of 80°F (27°C). The flooring does not require an acclimation period.

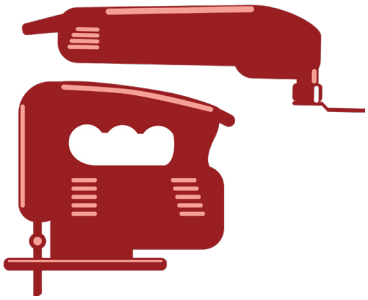
Note: When installing at temperatures >80°F (27°C), the width of the expansion gap may increase as the flooring temperature decreases.



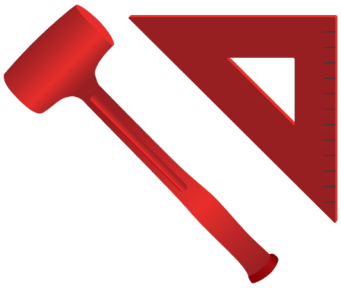


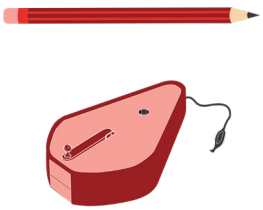
- Knee Pads
- Safety Glasses
- Cut-Resistant Safety Gloves
- Dust Mask





- HEPA-Filtered Vacuum
- Oscillating Multi-Tool or Hand Saw (for door jambs)
- Jigsaw with Carbide Blades(for complicated cuts)

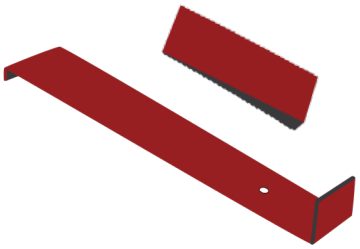




- 2 lb. (~32 oz.) Dead Blow Hammer (preferred) or Rubber Mallet
- Speed Square
- Pencil
- Chalk Line







- Tape Measure
- Utility Knife with Blades
- Wedge Spacers
- Pull Bar



- 6-foot and 1-foot Straight Edge or Level

1. Substrate Preparation

General Substrate Guidelines

Ensure the substrate is clean, dry, flat, sound and suitably prepared according to these instructions prior to installation, as manufacturer is not responsible for problems related to substrates that have not been properly prepared. All substrates must be free of visible water or moisture, dust, residual adhesives and adhesive removers, solvents, wax, oil, grease, asphalt, visible alkaline salts or excessive efflorescence, mold, mildew and all other extraneous coating, film, material or foreign matter. Substrate and/or subfloor deflection, movement, or instability may cause issues with the flooring installation – these are not covered under warranty.

Flatness Guidelines

Check all substrates for flatness prior to installation. All substrates must have a floor flatness of FF32 and/or have a maximum deviation of < 1/8-in. gap (2 x US quarters should not slide underneath) within 6-ft. and ≤ 1/16-in. gap (1 x US quarter should not slide underneath) within 1-ft.. Substrates that do not meet this requirement must be corrected appropriately before installation begins.

Concrete Substrates

All concrete substrates must be at least 28-days old, free of contaminates and structurally sound. If required, flatten and/or smooth the surface using a suitable, moisture-resistant, commercial-grade leveling or patching compound, following the product instructions. Do not install if water or hydrostatic pressure is visible, present or suspected. If a chemical adhesive remover has been used, contact the technical department. For all on and below grade concrete substrates refer to "Concrete Moisture Requirements".

All expansion joints must have a suitable expansion joint covering system installed to allow for expansion and contraction of the concrete. All dormant construction joints and surface cracks > 1/4-in. must be cleared of all dust, dirt and debris and filled with a rigid crack treatment designed for use in construction joints or cracks. Follow the products instructions and ensure surface is troweled flush with surface of concrete.

Concrete Moisture Requirements

For all On and/or Below Grade concrete substrates, test the surface to confirm it is absorbent (porous). Follow the ASTM F3191 Standard Practice for Field Determination of Substrate Water Absorption (Porosity) for Substrates to Receive Resilient Flooring - water droplet(s) placed on the surface must be absorbed into the concrete within 12-hours for the surface to be considered absorbent. If required, the concrete can be made porous by mechanical methods, such as diamond grinding, a DiamaBrush buffer attachment, shotblasting or similar.

If the substrate cannot be made porous and will not have a topical moisture mitigation system installed, install a ≥ 6-mil thick polyethylene (PE) sheet, which is available at most home improvement stores. Use sheeting that is ≤ 10-ft. wide to prevent wrinkles and folds. Sheeting must be installed over the entire area and extend at least 2-in. up the walls. All seams must be overlapped and sealed according to the product instructions.

Gypsum / Lightweight Concrete Substrates

Lightweight or gypsum substrates must be dry (according to the product manufacturer's requirements) and 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. Gypsum and lightweight substrates must be firmly bonded to a structurally sound subfloor. All cracked or fractured areas must be removed and repaired with a compatible repair product. New or existing gypsum or lightweight substrates may require a sealant or primer be installed prior to resilient flooring installation - follow the product manufacturer's recommendations regarding preparation for resilient flooring.

Wood Substrates

All wood substrates must be structurally sound, dry and within the moisture content percent (MC%) for your region. Wood substrates and subfloors must be compliant with and, if necessary, prepared in accordance with ASTM F1482. Wood substrates should be of double layer construction with a recommended total thickness of 1-in. or more, depending on federal, state and local building codes. Sleepers and sleeper systems must not make direct contact with concrete.

Resinous Coating Substrates

When installing directly over a resinous coating, such as an epoxy coating or a moisture mitigation system, ensure the coating is clean and free of contaminates, structurally sound, smooth, dry and has cured for the prescribed length of time.

Metal Substrates

Metal substrates must be clean, dry, structurally sound smooth and free of oil, rust and/or oxidation. 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 the metal substrate. Contact a local paint or coating supplier for coating recommendations.

Other Substrates

Installing over existing resilient vinyl flooring is not recommended. However, it may be possible over some materials, such as VAT, VCT, quartz tile, solid vinyl tile, sheet

vinyl or linoleum, as well as existing hard surface flooring substrates, such as terrazzo, porcelain or ceramic tile. Ensure existing flooring is a single layer and is clean, dry, sound, solid and well adhered. All loose material must be removed and repaired or replaced. All grout lines and wide seams greater than 1/4-in. in width and/or depth, as well as any significant substrate imperfections, must be filled and troweled flush with a suitable cementitious patch. By electing to install over any existing floor covering releases the manufacturer from any responsibility regarding the suitability and continued performance of that product, including any resulting effect on the new floor covering.

Radiant Heating Requirements

When installing flooring over a substrate that contains a radiant heating system, ensure that none of the heating elements make direct contact with the flooring material. Ensure radiant heat is no higher than 70° F (21° C) 8-hours prior to and during the entire installation. 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.

Sound Control Substrates

Additional Sound Control Underlayments cannot be used under this flooring. Any and all issues related to the installation of additional, unapproved underlayments will not be covered under warranty.

Unsuitable Substrates

These include, but are not limited to: any floating or loose floor coverings, hardwood, carpet, cushioned vinyl, rubber, cork, foam, asphalt tile, additional acoustical underlayments and any substrate with visible mold, mildew, or fungi and any substrate in wet areas, such as inside showers and saunas. Do not install directly over any adhesive or adhesive residue of any kind. Do not install in recreation vehicles, campers or boats.

Note: Existing hardwood floor coverings will swell when exposed to moisture - vinyl floor covering may restrict the movement of moisture in hardwood, which may result in flooring failure, especially when installed on or below grade. Some hardwood floor coverings may also discolor vinyl floor covering. Issues related to unsuitable substrate are not covered under warranty.

Wet Area Guidelines

Some subfloors and substrates, such as plywood, may be sensitive to and damaged or deformed by topical liquids, such as water, pet urine and spills. While Polished Pro Rigid Core Flooring is a waterproof product, water-sensitive subfloors may require additional protection to prevent water exposure. When installing floor covering in wet areas, ensure that bathmats or similar are used where appropriate to decrease the amount of water that can collect on the surface. Any and all spills should be cleaned up immediately after discovering them and within 8 hours. Subfloor flatness is critical to preventing water migration through seams that may flex or peak due to foot traffic and subfloor deflection - be sure to check flatness and make all necessary adjustments prior to installing.

Water-sensitive substrate must have a ≥ 6-mil thick polyethylene (PE) sheet (available at Hardware stores) installed over the entire area and extend at least 2-in. up the walls. All seams must be overlapped and taped according to the product instructions. In addition, the area must be separated from all other rooms using a suitable water-resistant t-molding. Following flooring installation, the plastic sheet must be trimmed flush with the surface of the subfloor. Prior to installing wall-base or molding, the required perimeter expansion gap must be filled with a 100% silicone caulk, including the wet area side of all t-moldings. Additionally, all door jambs, plumbing and vertical surfaces that won't have wall-base or molding installed must be sealed with 100% silicone caulk. Once the entire perimeter has been filled or sealed, water-resistant wall-base, moldings or other accessories may be installed. Apply a bead of silicone caulk to the parts of the wall-base or moldings that will make contact with the surface of the flooring. Ensure all wall base and moldings are attached to the subfloor, wall or wall-base without compression, to allow movement and cleanup any remaining silicone immediately. Do not anchor wall-base or moldings into or through the floor covering.

2. Flooring Expansion

Expansion Gap

Expansion gaps are required around the entire perimeter of the flooring and between the flooring and all adjacent vertical surfaces, such as adjacent flooring, fixed furniture, thresholds, fixtures, door jambs, and other protrusions - this allows the flooring area to freely expand and contract naturally. Do not adhere or anchor any accessories directly to or through the flooring material, as this could restrict natural movement resulting in an installation failure. The required expansion gap depends on the installation area, per the following:

- Areas that are ≤ 50 feet in length and/or width must have a ≥ 1/4-in. expansion gap.
- Areas that are 50-85 feet in length and/or width must have a ≥1/2-in. expansion gap.
- Three season rooms, sunrooms and other areas that will not have continuous HVAC control must have a ≥ 1/2-in. expansion gap.
- Hotel rooms that may undergo high-heat pest control must have ≥ 1/2-in. expansion gap.
- Areas with very heavy furniture ≥ 800-lb. (363-kg) must be isolated with a compatible t-molding and have

≥ 1/2-in. expansion gap.

Expansion Joint

When the total flooring length or width exceeds 85 feet, a compatible t-molding must be installed to create an expansion joint. Expansion joints must be wide enough to accommodate an appropriate accessory and allow for the appropriate expansion gap on either side. Accessories must cover the flooring material by at least 1/8-in. on each side and must be glued or anchored directly to the substrate.

Three season rooms, sunrooms and other areas that will not have continuous HVAC control must be ≤30 feet in length and/or width and must be isolated from other areas with a compatible t-molding, to ensure that flooring does not run room to room.

3. Flooring Installation

Installation Preparation

All wall-base should be removed before flooring installation. Alternately, a quarter round molding (fixed to the wall or wall-base only) may be used. Undercut all wooden door jambs and the first -in. of any remaining wall-base (later covered with molding) with an Oscillating Multi-Tool - the height must be the thickness of the floor covering plus 1/64-in., which will allow the floor covering to expand and contract naturally. Steel door jambs should be pattern-scribed, leaving the required expansion gap. Use a color-coordinated 100% silicone to fill the void. Clean the entire area to be installed using a HEPA-filtered vacuum.

Inspect all material prior to and during installation to verify that there are no visible defects, damages and excessive shading, sheen or texture variations. Blend materials from several cartons within the same lot to ensure a consistent appearance. Some flooring products, colors and textures have latent and acceptable color and shade variations. If there are concerns regarding defects, shade, sheen or texture variation, do not install material and consult a sales representative or manufacturer's technical staff. Labor costs associated with materials installed with obvious visual defects will not be covered under warranty.

Although mixing different lots within the same area will not affect the performance of the product, it is not recommended, as shade, sheen and texture variations may be visible. Prior to installing, compare different lots side-by-side from all directions and lighting conditions to confirm acceptability for the owner or end-user. Material installed with obvious visual differences related to production lots will not be covered under warranty.

Layout

Prior to installation, confirm the installation pattern and direction per the design specifications or work order. Planks should be installed in a random pattern - plank end joints should be randomly spaced by ≥ 8-in. Avoid "H" joints and do not install in a "Stair-Stepped" installation pattern, while ensuring no obvious pattern repeats emerge. Failure to randomize the end joints could weaken the integrity of the locking mechanism, which may lead to failure. Tiles must be installed in a brick-bond or 1/3rd off-set pattern.

Starting Line

Determine the best wall to start the installation along – typically, this is the longest straight wall with a doorway. Measure the width of both ends of the room and, accounting for the necessary expansion gaps, calculate the width of your last row. If it is less than half the width of the floor covering or if a balanced design is required, reduce the width of the first row accordingly. Use a chalk-line to mark the outside edge of the first row on the substrate.

If needed, trim the first row by removing the side without the extended locking mechanism (tongue) to fit, accounting for the expansion gap. To trim the first row, either measure and mark your cutlines or use the mirror-scribe method. To mirror-scribe, place your selected piece on the opposite side of the chalk-line, so that the chalk-line is above the extended locking mechanism (tongue). Then, place a full piece flush with the wall, overlapping your selected piece. Using the overlapped piece as your guide, mark a cutline on your selected piece with a pencil. Once marked, proceed with trimming the first row as detailed below.

Cutting

To cut the floor covering, carefully score along the cut line at least twice with a sharp utility knife. When cutting across the width of a piece, use a speed square as a guide. Snap the piece downwards and, if necessary, trim the attached underlayment from underneath. For complicated cuts, such as around fixtures or door jambs, use a jigsaw with a carbide blade, following the tool's safety instructions.

First Row (Slide)

At the left corner of the starting wall, position the first piece so that either the pre-cut side or the side without the extended locking mechanism (tongue) is flush with the wall. Place wedge spacers between the floor covering and the wall to maintain the required expansion gap. Before connecting the second pre-cut piece, lay it flat on the substrate, adjacent to the first row and lined up with the end of the previous piece. Then, while keeping the joint aligned, slide the ends together, locking the joint into place.

Complete the entire first row using this method. When you reach a doorway, make sure the cut edge will be covered by the door jamb and frame while maintaining the required expansion gap.

Keeping the installation straight is critical - check the first row using a chalk line or similar and adjust or reinforce the entire row with wedge spacers as needed to prevent movement. The acceptable straightness tolerance is within 1/16-in. for > 20-ft. lengths or 1/32 -in. for < 20-ft. lengths. Begin the following rows with a cut piece, perhaps from a

previous row, and follow the "Side Joints" detail below.

Side Joints (Angle)

Starting at the left corner, typically with a cut piece, insert the side without an extended locking mechanism (tongue) into the previous row at a ~25° angle. Make sure it is properly seated and slides freely, then slide the piece into position. The end joint must either be flush with the wedge spacer (first piece) or be closely aligned with the end of the previous piece. Lay the piece flat and complete the end joint as detailed below.

End-Joints (Drop-Lock or Fold-Down)

Before locking end joints into place, check the alignment at the joint and adjust as necessary. To engage the locking mechanism, lightly tap along the raised piece using a 1-lb. (~ 16-oz.) soft faced dead blow hammer (preferred) or rubber mallet. Keep the striking head flat with the floor covering and tap until the joint is completely flush. If the end joint is not properly aligned, it may break - pieces with damaged or broken locking mechanisms must be removed per the process below. When replacing damaged pieces, adjust the straightness of the row and/or the alignment of the joint prior to engaging end joints to prevent further damage.

Flooring Removal

If you need to replace a piece or disengage the end joints for any reason, first unlock the side joints of the entire row by raising the outside edge of the row by ~25°, then disconnect the row from the installation. Once the row is removed, ensure that all pieces are lying flat and are properly engaged, then slide each piece apart. If pieces do not slide easily, the locking mechanism may not be fully engaged – simply tap the piece with a dead blow hammer or rubber mallet to fully engage and slide apart. Do not separate pieces by angling them or pulling them upward, as this will break the locking mechanism.

Additional Tips

Do not hit any part of the locking mechanism directly with any hammer, tapping block or pull bar unless it is the last row - doing so will damage the locking mechanism and may result in peaking, gapping and joint separation. If you need to tighten gaps in the installation, use a ~6-in. piece of scrap floor covering, seated in the locking mechanism, and lightly tap to close any joints.

If you need to install small pieces that are < 3-in. in length or width, place a thin bead of Liquid super glue on the previously installed locking mechanism just before installing. This will ensure the joints remain locked together during use. Do not get the adhesive on the surface, be prepared and if required, immediately remove adhesive using isopropyl alcohol with a clean white cloth - super glue coverage should be ~30 feet per oz.

After the first five or six rows are completed, turn the installation process around so that you are working on top of the installed material. This will allow the side joints to be pulled together rather than pushed, which will make the installation easier.

Post-Installation

Visually inspect the installation to ensure that the appearance is uniform and straight, that the locking mechanisms are fully engaged, that all seams are tight and correctly staggered/spaced, and that the expansion gap is the correct width. Trim off any excess plastic sheeting as necessary. Fill any perimeter gaps that will not be covered by an accessory with a 100% silicone, color-coordinated caulk. When spot cleaning, do not apply abrasive or solvent-based cleaners directly to the surface of the floor covering. When covering perimeter gaps with an accessory (wall base, molding, thresholds, t-molding, etc.), ensure the accessory overlaps the flooring material by at least 1/8-in.. All accessories must be glued or anchored directly to the substrate or vertical surface. When required, protect newly installed flooring with construction grade paper or protective boards, such as Masonite, Ram Board or plywood, to prevent damage from other trades. Take photographs and have any required documentation signed and filed following completion. Save three or more extra pieces of material in the original packaging as attic stock for the lifetime of the floor. **In the unlikely event of a product issue, attic stock can play a crucial role in product identification, color matching, product claim verification and possible repairs.**

4. Flooring Protection

Do not slide or drag heavy objects across the floor. When moving appliances, heavy furniture or equipment, protect the flooring with appropriate, hard surface furniture sliders or 1/2-in. plywood.

All furniture casters or glides must be intended for resilient flooring and made of a soft material, such as a felt, silicone or a poly-based material. Casters and glides must have a flat contact point that is at least 1 -sq. in. or 1.125-in. in diameter to limit indentation and flooring or finish damage. All rolling seating in desk areas must have chairs that use soft, W-Type polyurethane wheels and a polycarbonate resilient flooring chair pad installed over the finished floor to protect it. Do not use nylon/hard plastic wheels, glides or casters.

All fixed furniture legs or corners must have permanent floor protectors installed on all contact points to reduce indentation, wear, scratching and other flooring or finish damage. Floor protectors must be intended for resilient flooring and made of a soft material (such as a felt, silicone or a poly-based material). Floor protectors must have a flat contact point of at least 1 -sq. in. or 1.125-in. diameter and must cover the entire bottom surface of the furniture leg. Do not use nylon/hard plastic floor protectors or furniture feet.

Ensure all furniture castors and chair legs are clean and