

DRICORE[®]

**SUBFLOOR SYSTEM
WITH CERTIGUARD™ PERFORMANCE.**

Installation and Planning Guide



www.dricore.com
help@dricore.com
or call 1-866-976-6374
Weekdays 9am-5pm EST

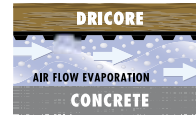
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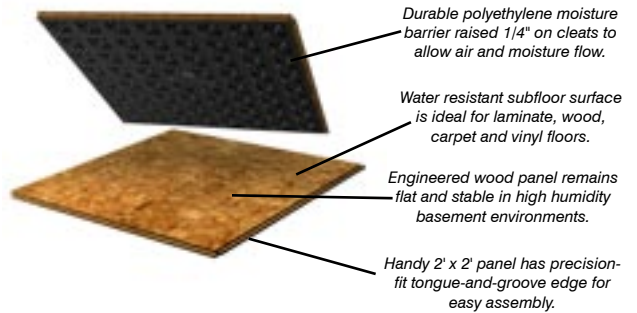
WHY DRICORE?

DRiCore is a one-step engineered subfloor system with a raised integrated moisture barrier designed to elevate and insulate from cold, hard, damp concrete floors.



Compared to other subfloor methods, DRiCore panels install fast and easy. There is no better way of covering concrete so conveniently. Finish 100 sq. ft. in just an hour!

DRiCore panels are easy to install. Press-fit panels together through a secure tongue-and-groove design. No fastening or gluing is required. Panels stay together by staggering seams to interlock creating a ‘puzzle’ effect. (See Fig. 1 on page 5.)



HOW TO USE THIS GUIDE

This booklet has been designed to help you plan and install a DRiCore subfloor and achieve optimum results. The first part of the booklet contains general planning and installation information which applies to all installations. The second part contains information related to specific basement wall situations and the type of finished floor that is to be applied over the DRiCore subfloor. The pages are color coded. Codes are as follows:

- Unfinished Basement Walls.
- Finished Basement Walls.

BEFORE YOU BEGIN CHECKLIST

- ✓ Read all instructions carefully including the "Special Health Protection Information" below.
- ✓ Inspect basement foundations for structural integrity and repair any sources of moisture penetration.
- ✓ If you have a sump pump, inspect and maintain if necessary. If the pump needs to be replaced, consider one with a battery back-up.
- ✓ For concrete floor preparation see page 4.
- ✓ For the subfloor installation design for your home see pages 10-19.
- ✓ For the installation tools required see page 7.
- ✓ For the number of panels and leveling kits for your project refer to **Panel & Leveling Kit Calculator** on page 20.
- ✓ Allow DRlcore panels to acclimatize for at least 24 hours in the room where they will be installed by stacking or laying them out on the floor with the plastic cleated surface down. **Acclimatize both finished wood flooring and DRlcore panels simultaneously to equalize the moisture contents of both products.** For installations during periods of seasonal high humidity greater than 50%, the panels should acclimatize in the room where they will be installed for at least 72 hours. For more information visit www.dricore.com or call the DRlcore Help Desk.

ACCLIMATE
24
HOURS

IMPORTANT HEALTH PROTECTION INFORMATION

PERSONAL PROTECTIVE EQUIPMENT

Wear goggles or safety glasses, work gloves and approved dust mask when cutting panels. Use an approved respirator in dusty or enclosed environments.

VENTILATION

Accumulated wood dust can contaminate your home and be a food source for mold. Be sure to clean up dust and cut panels outside or in a well-ventilated garage.

For the DRlcore Material Safety Data Sheet go to the Healthy Home section of www.dricore.com or call 866-976-6374.

START TO FINISH INSTALLATION



1. Clean floor. Level spots > than 1/4"

2. Acclimatize panels for 24 hrs



3. Install 1/4" spacers for expansion gap

4. Stagger seams to interlock panels



5. Use DRlcore shims for leveling

6. Use pull bar on panels for snug fitting



7. Continue staggering seams

8. Once complete, remove 1/4" spacers

SPECIAL INSTALLATION INFORMATION

EXPANSION GAP

We recommend that the panels have a 1/4" space away from all perimeter walls and room obstacles, such as support posts or stairs to allow for some expansion or contraction. (See ① in Figure 1.) Check with the lumber department for some 1/4" wood strapping, off-cut stock or other inexpensive 1/4" dimensional lumber that you could use as spacer material.

FASTENING PANELS TO CONCRETE

Remember that DRlcore must be installed as a floating floor. Normally it is not recommended to nail, glue or screw DRlcore panels to the concrete surface. In some instances, we suggest minimal fastening of the panels to the concrete surface. (See carpeting on pages 12 and 13.)

FLOOR DRAINS/CLEANOUTS

Access to floor drains or clean-outs should be maintained, not restricted. Be sure to check with your local authority for building code recommendations before covering any basement floor drain or clean-out access. (See ③ in Figure 1.)

ADDITIONAL VENTILATION

To increase air flow and/or to remediate for leakage, install floor grilles or register covers around perimeter wall edges 8'-10' apart. (See ② in Figure 1 and pages 10 and 11.)

CONCRETE FLOOR PREPARATION

1. Install temporary 1/4" spacers around the perimeter of the room.
2. Assess your moisture risk by testing the concrete floor for excessive moisture conditions. Run a 24 hour patch test with 12"x12" 6 mil poly taped to the concrete. See the contractor desk at your local building supply yard for assistance on moisture control options if droplets or staining appears.
3. Sweep, vacuum and remove any debris, dirt, bumps or ridges on the concrete surface that may interfere with the seating of DRlcore panels. A perfectly clean concrete floor is mandatory for a successful installation.

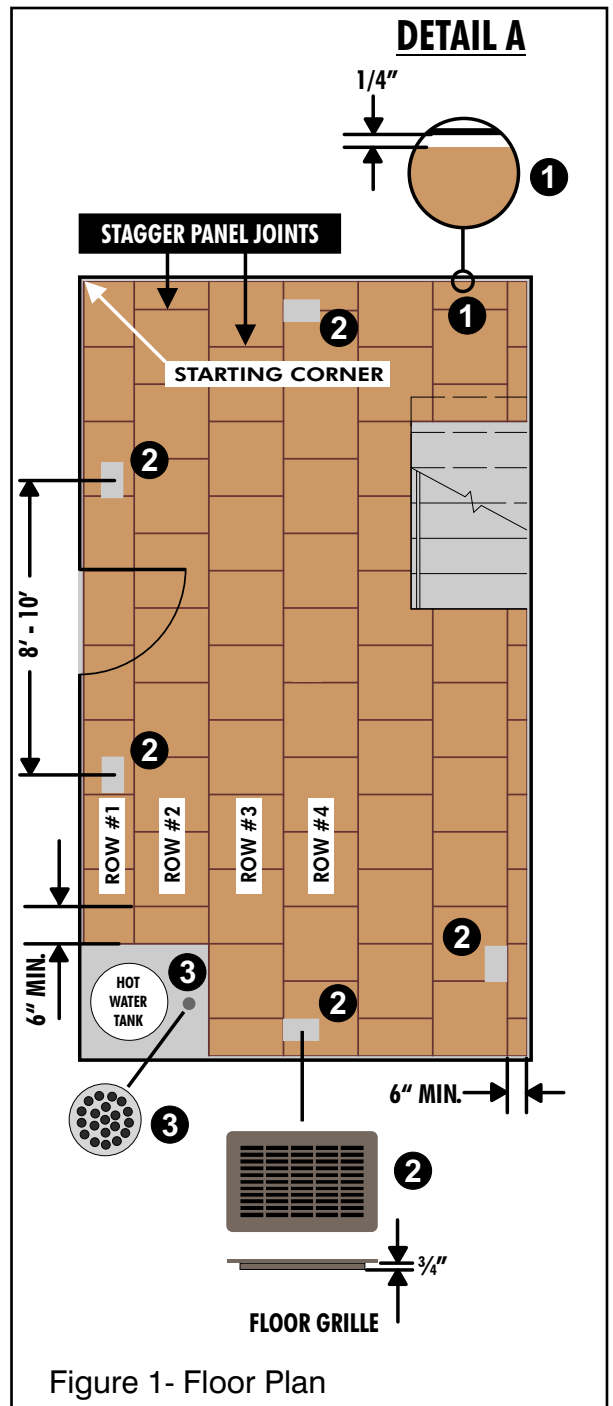
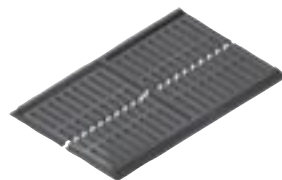


Figure 1- Floor Plan

- ① 1/4" space away from all perimeter walls and room obstacles
- ② Floor grille location
- ③ Floor drain

Visually inspect the floor area for bumps or ridges that will have to be removed before you begin.

- Any dips or low spots in the concrete surface greater than 1/4" should be troweled level with a Portland cement compound or leveled with a liquid self-leveling compound to ensure a successful installation.
- In situations where the concrete has an existing subfloor and/or floor covering that may trap, block or absorb moisture, we recommend that they be removed before installing DRIcore panels. Check with the DRIcore Help Desk for advice on removing existing flooring over the concrete floor. A high quality concrete sealant may be required if hydrostatic moisture through the concrete slab is a problem.



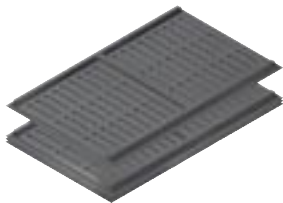
Cutting Shim into 2 parts



2 Half Shims Stacked

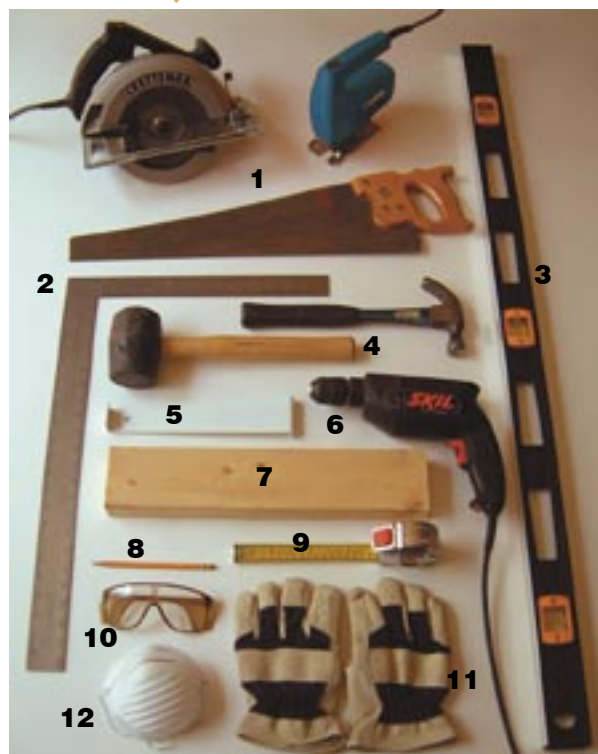
THE LEVELING KIT

- The leveling squares have been designed to slide under the DRIcore panels, to adjust for uneven areas on your concrete floor that are less than 1/4".
- Slide the leveling squares into place on the underside of the DRIcore panel where the height adjustment is necessary. See picture #5 on page 3.
- The leveling squares can be installed between two DRIcore panels and if necessary, can be cut in half in order to fit (as shown at the top of the next page). In some cases, you may need to stack up to a maximum of 4 leveling squares together to get the right height adjustment needed to level the panel.



4 shims being stacked

TOOLS REQUIRED



1 Power, jig or hand saw 2 Square 3 Level 4 Mallet or hammer 5 Pull bar 6 Power drill 7 Tapping block 8 Pencil 9 Tape measure 10 Safety glasses 11 Work gloves 12 Dust mask

BEGINNING THE INSTALLATION

- Measure the length and width of the room from the selected starting corner to ensure the last panel pieces in each row end are greater than 6". Trim the side of the first panel or the tops of the starting row if necessary, to account for the row end pieces. You can also loosely lay the panels down to dry-fit a test row.

2. Check your starting corner for squareness. If your starting corner is not at a 90° angle into the room, then the wall edge of your first row of panels will require cutting.



3. In your selected starting corner, lay the first panel with the groove sides flat against the 1/4" spacer material.
4. Slide the next panel against the starting panel by press-fitting the groove of the second panel into the tongue of the first panel tightly in place. Use a tapping block and hammer to ensure a snug fit. Repeat until row is complete.

5. Cut the last panel of each row to fit into place allowing for the 1/4" gap. Use a pull bar to pull the last panel into place.



6. Check each completed row for leveling and use leveling squares as required. Stagger panel seams of alternating rows by using off-cuts from the previous row as the starting panel. (See Figure 1 on page 5.)

7. Row #3 looks just like Row #1. Starting Row #3 with a full-size panel will create the natural seam offset. Row #4 would be staggered again as in Row #2.

8. The first three rows are the most critical to the success of a DRlcore subfloor. Take your time, and install tightly, to prevent any seam separation. Working with more than two rows at a time makes leveling and moving panels more difficult.



9. Continue to install the floor. Work from one side of the room to the other, one row at a time pressing panels together to ensure a snug fit.

10. When you reach the last row and last panel to complete your installation, you may have to cut the panel to fit. Measure for fit, allowing for the required additional (1/4") expansion space from the wall. Cut and press into place with the pull bar.

11. When all of your panels are in place and the finished floor is installed, you can remove the temporary spacers around the perimeter of the room.

MAKING INTERIOR WALLS

DRlcore panels can be installed where there is existing wall framing or just a concrete foundation wall. For situations where there is only the concrete foundation, it is best to install wall framing directly on top of DRlcore panels to elevate the floor and wall framing away from the direct contact of potentially damp, moist concrete. Whether framing currently exists or will be installed on top of DRlcore panels, be sure to use the temporary 1/4" spacer between DRlcore panels and the existing wall structure to allow for expansion and air circulation.



NOTE: If you are planning to use metal studs in place of wood, the base track for the studs should be affixed to the DRlcore panels with 1/2" wood screws as a maximum. Metal stud base plates should be anchored in concrete every 2' when installing over DRlcore panels.

FINISHED FLOORING OPTIONS



Carpeting
see pages 12 & 13



Laminate Flooring
see pages 14 & 15



Vinyl Flooring
see pages 16 & 17



**Engineered Wood/
Solid Wood Flooring**
see pages 18 & 19

Refer to the DRlcore website for further finishing details.

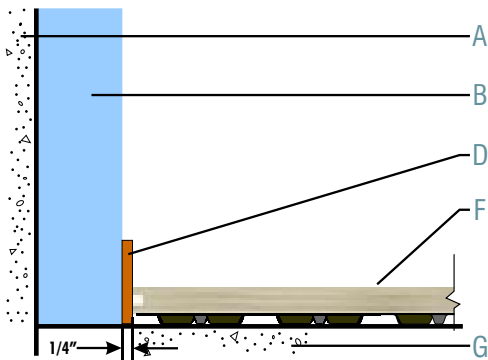


Figure 2.1- Section - DRlcore Panels

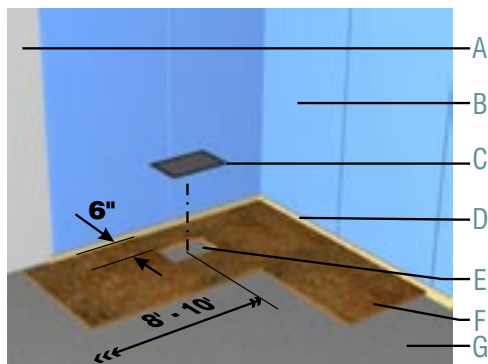


Figure 2.2 - Perspective - DRlcore Panels

- A** Unfinished foundation wall
- B** Extruded polystyrene insulation
- C** Floor grille
- D** Temporary 1/4" x 2" x 4' spacer
- E** Vent opening
- F** DRlcore® panel
- G** Concrete Floor

1. Install temporary 1/4" spacers against the wall.
2. Install DRlcore subfloor panels as per our instructions. Be sure to include openings for floor grille vents.
3. Install your 2"x4" walls directly on top of the DRlcore panels, measuring for a "snug" fit between the panels and ceiling.
4. Once the walls are framed and in position, fasten each end of the base plate with a concrete fastener through the base plate, DRlcore panels and into the concrete floor.

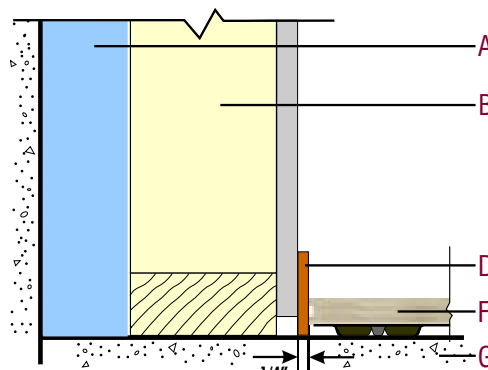


Figure 3.1- Section - DRlcore Panels

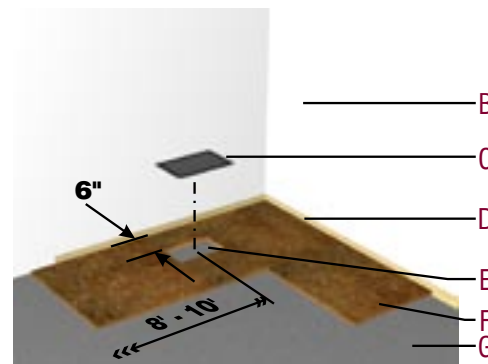


Figure 3.2 - Perspective - DRlcore Panels

- A** Extruded polystyrene insulation with 1.74 RSI and R-10 insulation values
- B** Existing stud wall including sill gasket
- C** Floor grille
- D** Temporary 1/4" x 2" x 4' spacer
- E** Vent opening
- F** DRlcore® panel
- G** Concrete Floor

5. For additional fastening, simply screw the bottom plates of the 2"x4" wall to the DRlcore panels, using 2" wood screws into the wood subfloor material only. Too many fastening points breaking through the polyethylene moisture barrier may defeat the moisture resistant benefit of the DRlcore subfloor system.
6. The 1/4" temporary spacers can be removed once each wall section is secured in place or after all of the walls are in place.

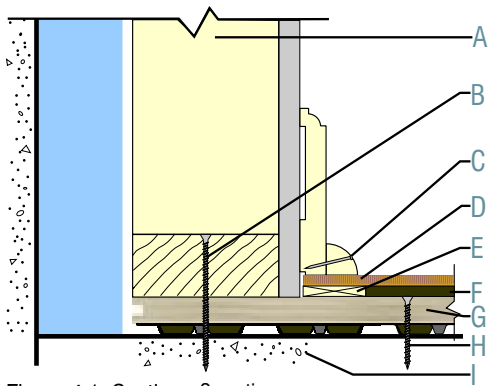


Figure 4.1- Section - Carpeting

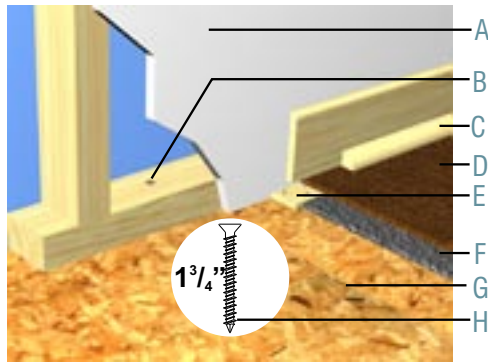


Figure 4.2 - Perspective - Carpeting

- A New wall
- B 1/4" x 3 1/4" Tapcon® fastener through base plate (2 per 8')
- C Fasten quarter round to baseboard
- D Carpeting
- E Tack strip
- F Underpad
- G DRIcore®
- H 1/4" x 1 3/4" Tapcon® fastener every 3 panels around perimeter
- I Concrete Floor

1. Install carpet tack strips to perimeter of the DRIcore panels.
2. Do not glue underpad or carpet directly to the DRIcore panels.
3. To prevent panel uplift when stretching carpet, fasten panels to the concrete floor with concrete fasteners at perimeter edges every six feet, and one in the panel in the centre of the room.

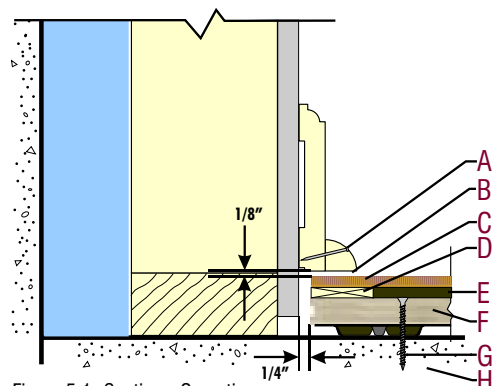


Figure 5.1- Section - Carpeting

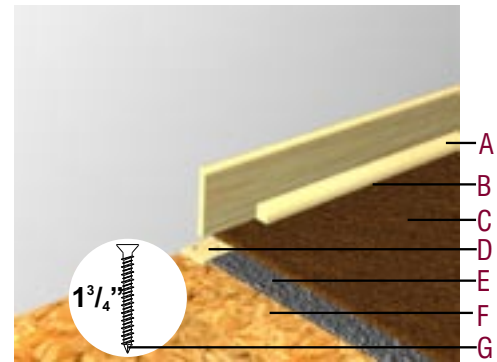


Figure 5.2 - Perspective - Carpeting

- A Fasten quarter round to baseboard
- B 1/8" air space under baseboard and quarter round
- C Carpeting
- D Tack strip
- E Underpad
- F DRIcore®
- G 1/4" x 1 3/4" Tapcon® fastener every 3 panels around perimeter
- H Concrete Floor

NOTE: It is recommended to install the baseboards after the finished floor is in place and the temporary spacer material has been removed to maintain the air space and expansion gap at wall edges. Do not install baseboards tight against the finished floor. This will restrict airflow and expansion of the finished floor.

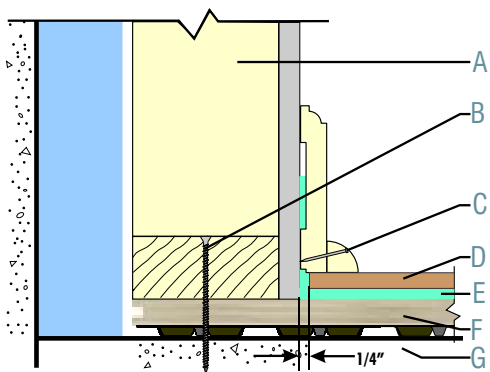


Figure 6.1 - Section - Laminate Flooring

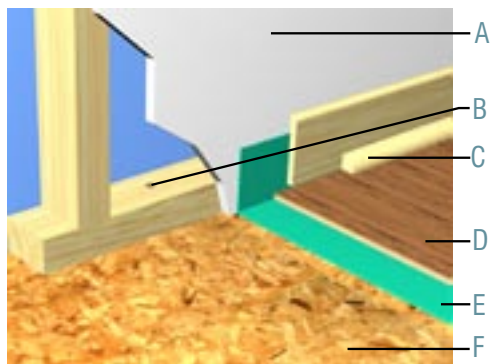


Figure 6.2 - Perspective - Laminate Flooring

- A New wall
- B 1/4" x 3 1/4" Tapcon® fastener through base plate (2 per 8')
- C Fasten quarter round to baseboard
- D Laminate Flooring
- E Underlayment
- F DRIcore®
- G Concrete Floor

1. Acclimatize both DRIcore and the laminate floor simultaneously to balance the moisture contents.
2. Install the floor manufacturer's foam underpad and laminate flooring on top of the DRIcore panels according to the floor manufacturer's installation instructions.
Note: Installation of a continuous vapour barrier that is sealed to the perimeter wall that blocks air flow from under DRIcore is not recommended.
3. Where the installation of a continuous vapour barrier is required, install up to the edge of DRIcore

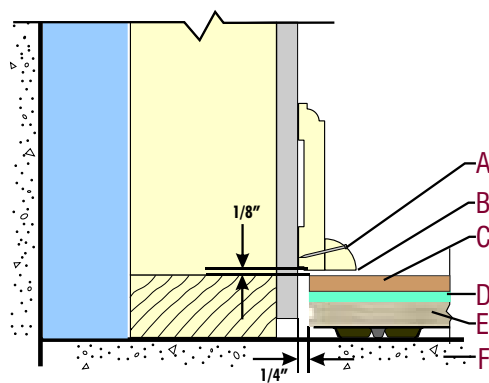


Figure 7.1 - Section - Laminate Flooring

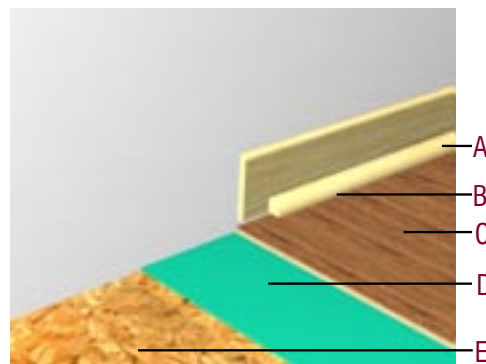


Figure 7.2 - Perspective - Laminate Flooring

- A Fasten quarter round to baseboard
- B 1/8" air space under baseboard and quarter round
- C Laminate Flooring
- D Underlayment
- E DRIcore®
- F Concrete Floor

- at the perimeter wall edges to allow for airflow and expansion of panels.
4. If walls are installed on top of DRIcore and a continuous vapour barrier is required under the finished floor, begin by installing the vapour barrier on top of DRIcore and up the wall edge to beyond the base plate or overlapping the existing vapour barrier on the wall.
5. Acclimatize both DRIcore and the wood floor simultaneously to balance the moisture contents.

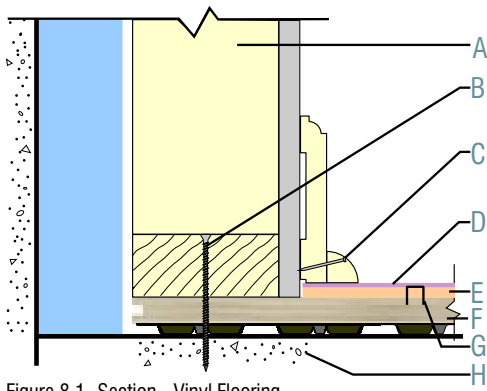


Figure 8.1 - Section - Vinyl Flooring

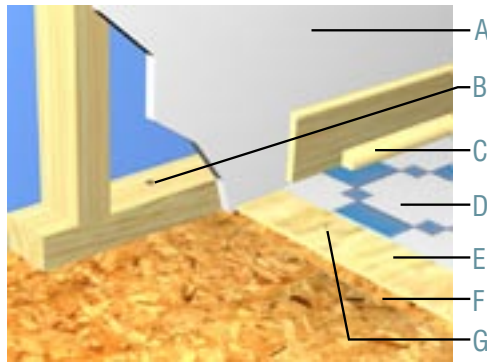


Figure 8.2 - Perspective - Vinyl Flooring

- A** New wall
- B** 1/4" x 3 1/4" Tapcon® fastener through base plate (2 per 8')
- C** Fasten quarter round to baseboard
- D** Vinyl Flooring
- E** Underlayment 1/4" x 4' x 4' plywood or composite panels
- F** DRIcore®
- G** Staples 12" on centre
- H** Concrete Floor

1. A 1/4" plywood underlayment, approved for use with sheet vinyl or vinyl tiles, should be installed with staples or screws to the DRIcore panels.
2. Use fasteners that are 1/2", and do not penetrate the moisture barrier on the underside of the DRIcore panels.
3. Do not glue the plywood underlayment to DRIcore panels.

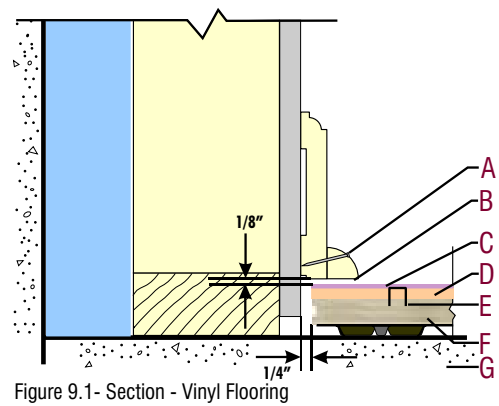


Figure 9.1 - Section - Vinyl Flooring

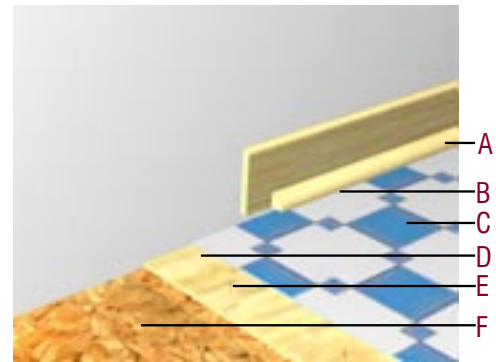


Figure 9.2 - Perspective - Vinyl Flooring

- A** Fasten quarter round to baseboard
- B** 1/8" air space under baseboard and quarter round
- C** Vinyl Flooring
- D** Underlayment 1/4" x 4' x 4' plywood or composite panels
- E** Staples 12" on centre
- F** DRIcore®
- G** Concrete Floor

4. Install the vinyl floor to the plywood underlayment according to the vinyl manufacturer's installation instructions.

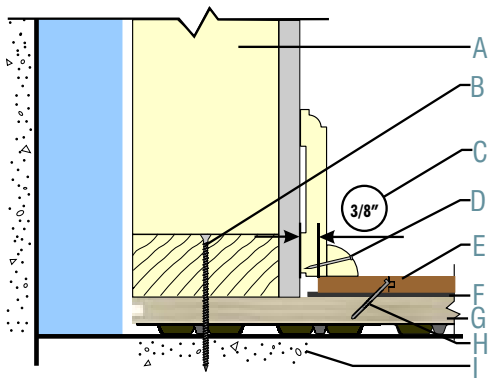


Figure 10.1- Section - Eng. Wood/Solid Wood Flooring

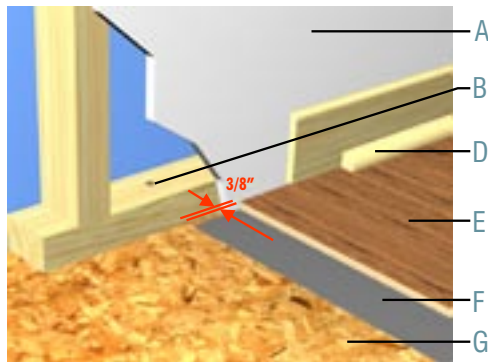


Figure 10.2 - Perspective - Eng. Wood/Solid Wood Flooring

- A** New wall
- B** 1/4" x 3 1/4" Tapcon® fastener through base plate (2 per 8')
- C** Equal to thickness of Engineered Wood
- D** Fasten quarter round to baseboard
- E** Engineered Wood
- F** Rosin Paper
- G** DRIcore®
- H** Angle nails @ 45°
- I** Concrete Floor

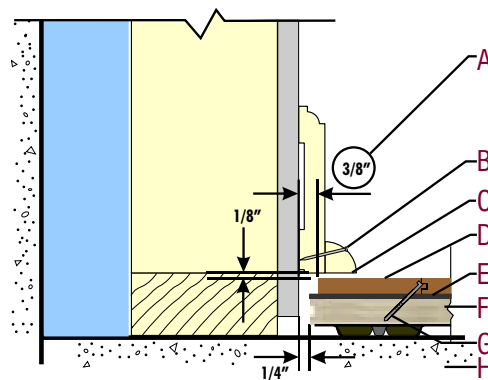


Figure 11.1- Section - Eng. Wood/Solid Wood Flooring

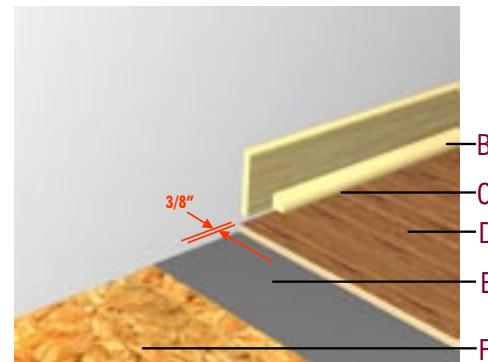


Figure 11.2 - Perspective - Eng. Wood/Solid Wood Flooring

- A** Equal to thickness of Engineered Wood
- B** Fasten quarter round to baseboard
- C** 1/8" air space under baseboard and quarter round
- D** Engineered Wood
- E** Rosin Paper
- F** DRIcore®
- G** Angle nails @ 45°
- H** Concrete Floor

1. Acclimatize both DRIcore and the wood floor simultaneously to balance the moisture contents.
2. Use engineered hardwoods that are approved for below grade installations. The National Wood Flooring Association defines below grade as any part of a concrete floor that is 4" or more below the soil level.
3. Do not glue engineered hardwood floors directly to DRIcore panels. Attach 4' x 4' x 1/4" underlayment plywood with 1/2" staples, screws or nails to the surface of DRIcore panels prior to installing the engineered hardwood floor.

4. Use approved fasteners for installing the engineered wood floor that do not puncture the underside of DRIcore panels. 1-3/4" barbed floor cleats are recommended.
5. For more information on specific fastener types and nailing instructions or for selecting the correct wood floor type for engineered hardwood floors from The Wood Flooring Manufacturers Associations visit: www.nofma.org/installation3.htm.
6. For above grade hardwood installations see the DRIcore website finished flooring section for details.

PANEL & LEVELING KIT CALCULATOR

ROOM SIZE	AREA — SQ. FT.	NUMBER OF PANELS*	LEVELING KITS
8' x 10'	80	25	1
8' x 12'	96	30	1
10' x 10'	100	31	2
10' x 12'	120	37	2
10' x 14'	140	43	2
10' x 16'	160	49	2
12' x 12'	144	44	2
12' x 14'	168	51	3
12' x 16'	192	59	3
12' x 20'	240	73	3
14' x 16'	224	68	3
14' x 20'	280	85	4
16' x 20'	320	97	5
20' x 20'	400	122	5
20' x 24'	480	146	6

PANEL ESTIMATING FORMULA USED IN TABLE

Length(____) x Width(____) = _____ sq. ft.

Sq. Ft. ÷ 3.3 = _____ # of panels required.

Note: the actual panel dimensions are 23-1/4" x 23-1/4" x 7/8".

*This table includes an allowance for obstacles and off-cuts.

LIMITED 25 YEAR WARRANTY

Longlac Wood Industries Inc. warrants the product performance and workmanship of the DRlcore subfloor panels for 25 years from date of purchase to the original purchaser.

This limited 25 year warranty is subject to the following conditions:

The DRlcore subfloor panels must be installed properly in strict accordance with our installation instructions.

This warranty does not apply to water damage caused by natural disasters, such as floods from naturally occurring elements or from household mechanical failures, such as washer/toilet overflow, frozen pipe break or sewer back-up.


The panels must be used indoors and in a residential area only. Warranty is null and void if the panels are used in a non-residential application.

The 25 year LIMITED warranty is against manufacturing defects only and only when product is used in strict conformity with its intended and expressly recommended purpose. Defective product, that has been verified by a representative from Longlac Wood Industries, will be replaced with new product only.

Warranty lasts for up to 25 years from the date of purchase to the original purchaser and does not include any damage that occurs during shipping (this would be the responsibility of the shipping company).



For warranty claims, contact the store where you originally purchased the product, with proof of purchase. For questions on our warranty call the DRlcore Help Line at 1-866-976-6374.



The Cure for Cold Feet

**The First Step in Covering Concrete.
The Last Word in Comfort.**



DRI CORE
SUBFLOOR SYSTEM
WITH CERTIGUARD™ PERFORMANCE.

For more information call 1-866-976-6374 (9a -5p ET M-F)
E-mail help@dricore.com or visit www.dricore.com

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