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DuPont ForeverLawn Installation Guidelines

DuPont™ ForeverLawn® Select Synthetic Grass

To ensure that your installation meets the highest standard of quality, DuPont™ ForeverLawn® Select Synthetic Grass requires a unique installation process. The product is best installed by authorized ForeverLawn dealers and installers. Here is a brief summary of the installation process. These guidelines are used for reference and consistency.

Critical Tools

Base Work

- Power circular saw for cutting if using perimeter boards.
- · Power drill for drilling holes in boards and concrete if necessary.
- Concrete drill bit or appropriate size to match anchor if going into concrete.
- Drill bit to center drill in boards if using rebar to anchor.
- Sledge or mini sledge hammer to pound rebar if using rebar.
- Deck screws for tying boards together if needed.
- Shovels and wheel barrow for digging/moving the gravel into the area.
- Landscape rakes (24"–36" wide) for spreading and leveling the gravel.
- Garden hose with nozzle for wetting the stone.
- Vibratory plate tamper for compacting the stone.
- Hand tamper (10"x10" or larger) for compacting edges and hard to reach places.

Cutting/Installation of Grass

- Utility knife with many blades (change blades frequently when cutting the grass).
- Tape measure.
- Sharpie marker (Sharpie Pro) for marking cuts on back of grass.
- Pneumatic staple gun only if using boards.
- Air compressor and hose.
- Hammer if not using boards.

Clean Up

- Blower.
- Push broom.
- · Dust pan.

Critical Supplies

- DuPont[™] ForeverLawn[®] Select Synthetic Grass.
- Aplix seam tape (micromechanical seaming system).
- Pressure treated lumber for perimeter boards if using perimeter boards.
- Rebar-typically 1/2" that are 18"-24" in length if using rebar to secure board.
- 6" 60D twisted shaft galvanized landscape spikes if not using perimeter boards.





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- Galvanized narrow crown staples 1"x1/4" crown in length if using perimeter boards.
- Concrete anchor screws or expanding concrete anchors if attaching boards to concrete.
- Gravel (3/4" down to dust)-should be a good mix of smaller particulate and larger stones.
- Garbage bags.
- Crumb rubber infill.

Let's start by taking a high-level look at the whole process. Seeing the big picture of what is being accomplished will make the detailed steps more understandable.

When installing DuPont ForeverLawn Select Synthetic Grass, the area must first be cleared of vegetation, and at a level where a 4" stone base can be installed. Once the area is cleared, we need to define the entire perimeter of the area and determine if boards will be used or not. It is recommended to use boards around the perimeter in commercial applications. You can use boards or just secure the perimeter of the grass with spikes in a residential installation. If using the pressure treated lumber (typically a 2"x4") it will be installed on edge, not laying flat.

When installing DuPont[™] ForeverLawn[®] Select Synthetic Grass using the 6" 60D galvanized twisted shaft landscape spikes, the edge of your stone base will define the perimeter of your installation area.

If using perimeter boards, install the boards to define the perimeter before bringing in the gravel. Once the perimeter is defined, gravel will be brought into the area. The gravel should be spread level just a little higher than the top of the edge (as the gravel will settle on compaction). Once completely spread to desired surface contour, the gravel edge should be wetted with a hose and then compacted with a vibratory plate tamper. If the base settles too much, more gravel should be added, and the process repeated.

Once the base is done, the grass should be brought into the area and rolled out. Factory edges need to be removed from side of the rolls that will be seamed together. The grass should be laid out like it will be installed, seams lined up, and then the edges at the end of the grass rolls should be cut to fit. Once the grass is properly trimmed, then anchored (in key areas), the seams should be put together and the rolls secured.

After the seaming is done, then any remaining unanchored areas should be secured. The grass should be cleaned up with a blower. If there is dirt or debris on the grass or surrounding areas, use a hose to rinse off. Then install the infill and clean up.

With that as the backdrop, let's take a closer look at many of these processes.

Define the Area

Make sure you know the area where the DuPont[™] ForeverLawn[®] Select Synthetic Grass is going, and that the amount of turf you have will fit. Measure, and remeasure the area. Then, using landscape marking paint, mark out the area that will be installed.





Ground Clearing

Clear the area of sod, stone, mulch, organic debris, etc., down to a consistent 3"-4" below the desired finish level of the DuPont™ ForeverLawn® Select Synthetic Grass. Spraying roots with weed killer may help prevent regrowth in some areas if all the roots were not removed.

Typically, the soil (sub-base) will percolate liquids. If the area has poor percolation, it may require more of the soil/base to be removed and/or more (larger) gravel brought in. If doing this, it is also recommended that some type of drainage system be installed to pull the water or liquids out of the area. Perforated drainpipes, and/or other drainage solutions can be installed at the sub-base level.

Perimeter Board Installation (Optional)

Pressure treated perimeter boards are anchored in order to frame in the area. The DuPont™ ForeverLawn® Select Synthetic Grass is secured to the top edge of the boards. Pressure treated (2"x4") boards are recommended as they resist degradation over time.

The top of the boards should be set to the level where you want the backing of the grass to be. With DuPont[™] ForeverLawn[®] Select Synthetic Grass, this is typically 3/4" below the surrounding area. For example, if going against a sidewalk, the top of the board should be 3/4"-1" below the edge of the sidewalk when installed.

When the boards are installed adjacent to concrete (wall, house footer, sidewalk, driveway, etc.), use concrete screws or wedge anchor bolts to secure. Drill through the board into the concrete, then anchor. (In some cases, if required, the perimeter boards can be reduced to a size of 2"x2" when anchoring to concrete). If up against an edge (like a fence) that can be attached to, but isn't concrete, just screw the boards in with deck screws.

When the boards are not being attached to something, we call that free standing. Free standing boards should have holes center drilled through the board lengthwise (as the board will be standing on the 2" edge). These holes are typically every 2' on center. Rebar should then be pounded through the hole into the base beneath. Make sure to counter sink the rebar so the metal is not sticking out of the board on top.

Gravel Base (aggregate)

The type of stone to use will vary based on area or region. Limestone, granite, and basalt have all been used. More important than the type of stone is how it is presented. The stone should be a crushed aggregate stone. The size should be about 3/4" down to dust. This type of stone should be at a depth of about 3". After this larger stone is brought in and compacted, a 1" layer of fines is used to cap the entire installation area creating a smooth finish.





Once the stone is placed in the area, it needs to be raked and leveled. This is very important, as the grass will reveal the base, not hide it. Make sure the area has the desired contour and is smooth. When satisfied with the layout of the stone, the area should be wetted, and then tamped to 90%–95% compaction using a vibratory plate tamper (use a hand tamper in areas too small for a vibratory plate tamper). A minimum of two passes by vibratory tamper per every 3"–4" of base material is recommended.

When compacted, the base needs to be firm. Base material should never be "dirty". We want to achieve a good base that will be firm, but still drain well.

6" 60D Galvanized Spike Option

When not using perimeter boards, the gravel will go to the end of the area. If it is an undefined edge (no wall sidewalk, or other), the gravel will now define the edge.

When the grass edge terminates along a soft or exposed edge (existing sod or mulch bed) the existing material should be pulled back so that the DuPont™ ForeverLawn® Select Synthetic Grass dives beneath it. The material from the yard can then be brought back into place after the edges are secured creating a seamless transition from artificial to natural surfacing.

DuPont™ ForeverLawn® Select Synthetic Grass Layout

With the base complete, it is time to bring the DuPont[™] ForeverLawn[®] Select Synthetic Grass into the area. The DuPont[™] ForeverLawn[®] Select Synthetic Grass comes in 15' wide rolls. The grass is directional, so the product should always be installed with the pile consistently going in the same direction. Open up the rolls and roll them out in the area.

Trimming the Grass and Lining Up Seams

DuPont[™] ForeverLawn[®] Select Synthetic Grass is unique in the way that the rows of grass are not visible from the backing. Due to this fact, we recommend a carpet tool called a Crain 303 Loop Pile Carpet Cutter (or similar) with the ForeverLawn bullnose attachment to remove the factory edges. This special nose is important to keep the cutter from cutting the blades. The bullnose attachment is only needed when seaming two panels together side by side. It allows the user to cut the grass lengthwise consistently staying between rows. Crossing rows of grass in this step will cause your long seams to not line up correctly. If not a seamed edge, just overlap the grass beyond the perimeter and the factory edge will come off when the grass is cut to fit.

Once adjacent rolls are trimmed, line up the rolls side by side. The grass should be able to be lined up and the seam essentially invisible. Make sure this is the case. The distance between rows of grass (not the backing) should be about 3/8". If there is excess backing material that won't allow this, trim it. Whatever the seam looks like now, is how it will look when finished. When the seam looks good, take some spikes and





anchor each roll so it doesn't move. Do this by placing several spikes down the middle of the roll, parallel to the seam.

When all adjacent rolls are lined up and anchored, the next step is to trim the ends of the grass (where the grass goes beyond the perimeters). When cutting to an edge, the grass should be marked and cut so the grass comes just short (we're talking millimeters) of the wall. Do this by rolling the edge of the grass back and pressing the backing up against the edge. Use a permanent marker to mark where to cut the grass (again, marking the back of the grass). Make a mark every few inches (closer together if the edge has a lot of movement), then pull the grass back and cut the grass from behind, tracing the marks made on the backing with the knife.

On wrapped edges, the grass should be cut long so it can wrap over the edge. Mark the same way, just marking for a longer cut, then trim the grass from behind.

Seaming

The two pieces should be lined up. The backing should not overlap, or even touch. The two pieces should be just short of touching.

Roll the grass edges away from the seam, place the seam tape down and roll the grass back into place. Put the side with the blades pointing away from the seam down on the Aplix tape first. Once the seam is lined up and properly set, you will want to walk the seam or roll the seam to ensure proper adhesion of the mechanical bond.

Once installed, the seams (where two pieces of DuPont ForeverLawn® Select Synthetic Grass are joined to create widths greater than 15') are virtually invisible and very durable. Much of that is due to the seaming process implemented by ForeverLawn. We use our proprietary micromechanical bonding system, which does not require glue. This eliminates some of the variables and challenges presented by glue.

Securing the Rolls

If using a perimeter board: Secure the grass to the perimeter boards using 1/4" narrow crown galvanized staples that are 1" in length. Staples are placed every 2-3" apart, and within 1/2" of the board edge using a pneumatic staple gun. Take care not to trap the grass blades when stapling.

If using spikes: Space the spikes about 8"-10" apart. Place the top of the spike between the grass rows and about 3/8"-1/2" away from the edge of the grass roll. Use a hammer to pound the spike in. Be careful to move the grass blades out of the way while pounding the spike in. Do not trap blades under the spike. Also, do not over pound or sink the spikes as this will create viable dimples in the grass.





Infill

Blow, rinse, or sweep the turf area as needed to make sure it is clean prior to installing the infill. Spread the appropriate amount of granular rubber infill over the turf. Work this into the base of the grass blades using a stiff bristled push broom and/or plastic leaf rake. If available, you may want to rent a motorized power broom from an equipment rental store. The infill stands the grass blades up and cushions the product. Sand infill is not required as our product has a dimensionally stable backing. However, if sand is desired it will be installed the same way. Multiply the recommended amount of rubber fill by four to determine the amount of sand to use.

Depending on the product you are installing you will want to apply the correct amount of infill per square foot of grass. Usually we recommend 3/4 lbs.–1lb. of infill per square foot. Most bags of rubber infill come in 50 lb. increments. This means, if you want to apply 1lb. per square foot, one bag of infill would cover 50 square feet. You would then lay out a grid of infill bags that measures 5'x10'. That one bag will then be evenly distributed within that 5'x10' area. This will be repeated with all of the bags laying out in the install area.

If using a push broom, push the broom against the lay of the grass, using a back and forth motion to work the rubber in.

If using the power broom, you want to have the brush head in such a way that the brush is rotating away from you and pushing the infill down into the backing of the grass. You will be walking the power broom with the natural lay of the grass. Work the throttle of the machine in such a way that you are not on full throttle, but just enough to have a consistent rotation of the brush head pushing the rubber down into the grass (MM55 STIHL Yard Boss with brush head attachment).

Clean Up

On free standing edges, the material on the other side of the DuPont™ ForeverLawn® Select Synthetic Grass (natural grass, stone, mulch, etc.) can now be filled up to the wrapped edge not exceeding the finish grade of the yard.

Use a blower to get rid of loose blades (that result from cutting), and if the grass or area around it is dirty from the install, rinse off with hose and water. The grass is now ready to be used.

