

PupGrass®

ARTIFICIAL GRASS BUILT FOR DOGS



Installation Guide



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Direction of Nap

Like carpet, Artificial Grass has a nap. To figure out which direction the nap is, look at the vertical lines on the backing. All cuts must be going in the same direction. Artificial grass has a "grain" to it, which means rather than standing straight up, it bends slightly at an angle. For the most natural look, roll it out so that the blades bend in one direction and make sure all the pieces are going in the same direction. Looking at the backing of Pup-Grass makes it easy to determine which direction the turf is pointing.

Soil Types and Drainage:

The vast majority of soil is clay. The structure of clay soil is affected by pH. In the optimum pH range (5.5 to 7.0), clay soils are granular and are easily worked. However, if the soil pH is acid or alkaline, clay soils become sticky and do not drain well. We recommend using a pelletized Limestone like *NutraLime® DG* pelletized limestone. The ratio depends on the specific brand used. You will need to break up the top 2-3" of soil with a tiller or shovel. Add the bags of lime using a fertilizer spreader. Once the limestone mixture is added, rake soil over the top and continue to rake the soil until it is evenly distributed. Create a slight grade for optimal drainage and rough level with a rake. Water the area and let sit for 12-24 hours.

As mentioned above, we strongly recommend using a pelletized limestone since regular lime is powder and creates a large amount of dust, which is an irritant to nose throat and lungs for people and pups.

Create a slight grade for away from structures of at least 1/4" per lineal ft. In 25', difference will be 6.25", which is an optimal slope for drainage. To create a slope, you can remove soil, or if you have the right soil level, add soil at the foundation and grade away from structures. Make sure you read instructions on the product packaging.

Sprinkler Systems:

If you have a sprinkler system you will want to keep, it will be more useful than you ever imagined because artificial grass gets very hot in direct sunlight. Even with our flow-through, translucent backing, and cool yarn technology, it is still too hot to walk on during the heat of the day. The other obvious conversation we need to have is odor. Pup-Grass® has antibacterial agents in our backing and antimicrobial within our yarn system. Even so, it still needs to be flushed thoroughly to remove residue particles through the backing and into the base material. The other option is to use the hose and manually flush the area.

Material Clarification

Base Rock is not pea gravel, and garden rocks mulch, etc. It is a specific mixture of recycled asphalt, concrete, and 3/8 + or- rock. It is used under foundations, driveways, concrete patios, and roads. It will compact up to 95%.

Concrete Sand to find a local supplier using the following keywords [Sand](#), [Gravel](#), and [Crushed Stone](#). Descriptions on Page 3

Chat and Decomposed Granite Although

These materials will compact, but they also wash away quickly. Stabilizers and chemicals can be added, but they are toxic to dogs. Aggregates are a natural product that is mined in many parts of the country and can be toxic to people and dogs. **Clay Soil** is composed of fine particles, usually silicates of aluminum and iron and magnesium. Clay soil impedes the flow of water, meaning it absorbs water slowly and then retains it for a long time. Wet clay soil is heavy and sticky, and tends to swell from the added moisture. When dry, clay soil shrinks and settles. The top layer can bake into a hard, concrete-like crust, which cracks. Some plants have difficulty growing in clay soil because their seedlings or roots are unable to penetrate through hard, dry soil, or can be waterlogged in wet soil.



Sand-Grave-Base-Rock

Local Hardware stores will carry some of the tools you may need, but very few hardware stores carry bulk sand gravel and rock products. When trying to locate a supplier for these materials, use the keywords "sand, gravel, base rock suppliers." You can also use keyword Quarry. Ready-mix concrete companies in your area can also tell you where to purchase these items. Below are common names for the materials you need to prepare the base for Pup-Grass. Also, we have listed other materials that some companies use, but they are not the correct material, and if a salesperson tries to convince you, that these are the right materials, you will know

SAND

YES



Concrete Sand

meets ASTM C33 FA and KSDOT FA-A requirements. It can be used in concrete and is also ideal for use as a base material and for sandboxes.

YES



UD-1

meets ASTM C33 #89 specifications for commercial and state projects. It is also ideal for use as a drainage material and as playground sand.

CRUSHED STONE

NO



CA-5

is a crushed limestone rock. It meets KSDOT CA-5 requirements. It can be used in concrete, driveways, landscape rock and for subgrade material.

Do not use

NO



AB-3

is a crushed limestone. It is ideal for use on driveways and as a base material for concrete.

Do not use

AB Or Class II Base Rock

YES



Recycled Baserock 3/4" is a crushed concrete material with fines is a great base material for Artificial Grass projects.

YES

NO



Limestone Screenings

are a by-product from crushing limestone into usable aggregate. It is ideal for use as a sub-base and fill material.

Do not use

Determine How Much Material You Need

The formula: Number of **Cubic Yards** = Length (in feet) Width (in feet) Depth (in feet) ÷ 27. Simply multiply the three dimensions together to find the number of **cubic** feet, then divide by 27 to find the number of **cubic yards**. Example 30' x 60' x 3" 22.2 Cubic Yards

[Online Calculator](#)

Site Prep: Fig 1

Mark the area Pup-Grass® is being installed. Use marking spray paint or chalk. Once you have marked off the area, remove existing sod, making sure all organic materials are removed. If dealing with clay soil, you have two options. It is less expensive to neutralize clay soil than removing and paying to have it hauled away. **See Page 2 for more details.**

Prepare Base: Fig 2-4

Once the old grass and all vegetation are removed, and you have removed or neutralized the soil, it is time to cover the area with base material—spread base material over native soil. The easiest way is to wheelbarrow several piles of the base material about 2'-3' apart. Once you have the piles placed, use a shovel to distribute the material evenly. Make sure you follow the slope created with the rough grading. Once the base material is distributed evenly and leveled, it is time to compact the entire area.

Compaction: Fig 5-6

The correct compacted base is important to a sound installation. It will remove voids and air pockets and will provide a firm base that will not expand or contract during wet and dry seasonal changes. For best compaction, wet base material slightly. Use a drum roller or vibrating plate compactor, compact to 80%-85%. When ordering base material call out Class II Road Base, CR#6 GAB, RC-6. After base material is compacted, use concrete Sand, or **ASTM C33 Washed** Fig 7. **Concrete Sand** to even out the base material. This material fills small voids and imperfections and provides a flat smooth surface for your installation. Use enough material to fill voids and smooth out the base. Use a vibratory compactor shown Fig. 6. **Do final compaction of the concrete Sand.**

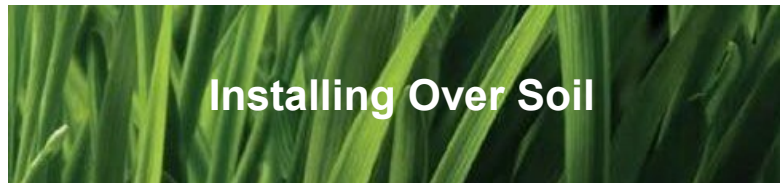
Edging:

Once the base is completed, Fig 8. It is time to install the edging. The edging is how you secure Pup-Grass. The two most common edging materials are PolyBoard and WonderEdge. We recommend WonderEdge because it nails down directly over the finished base, and there is no digging required.

Installing Pup-Grass® Fig 9.-10.

Allow Pup-Grass to warm in the sun by unrolling and laying flat. The heat will allow the material to more pliable and easier to stretch.





Cutting Artificial Grass

Always cut from the back. When cutting Pup-Grass, stay between the green lines. When seaming two sections of Pup-Grass cut at the third row from the edge. It is important to use a carpet knife with a new blade. Change Blades every 4-5 cuts to maintain clean edges and prevent yarn from unraveling.

Seaming Joints

Seams can be secured by two methods, either by using seaming tape or r nails. Regardless of which you choose, make sure your cuts are straight, and you are cutting between the tuft binds. When using tape and adhesive, roll back Pup-Grass on each side. Place seaming tape under the middle of two sections.

If seaming two synthetic grass rolls are required, trim the edge of each piece so that they are very straight. Once the edges of each roll are straight, lay them next to each other in the desired position. Make sure that the stitch lines match. If the cuts are straight and the tuft lines match, the seams will be virtually invisible. Place both ends of the artificial grass edges together, line up the stitch lines and fold back the edges of the synthetic grass sections to lay the 6" seaming material underneath the sections. Apply weather-resistant adhesive using a notched trowel. Fold the two sections of artificial grass down together over seaming material to form one seamless piece of synthetic grass. Make sure you trowel a thin line of adhesive or it will come up through the seam... Once the seams are glued either nail the seams to keep them from moving while drying or place heavy materials along the seam lines. Place 6" turf nails every 3"-4" nails on each side of the seam.

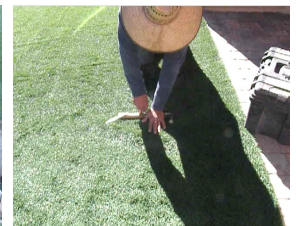
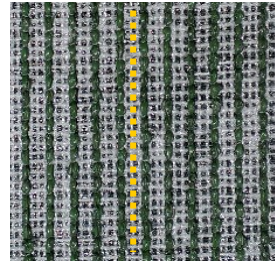
After the seams have dried, it is time to secure the perimeter, using 6" turf spikes nail the perimeter, about every 3-4" apart. And 6-8" in the middle. When nailing, spread the grass blades, so the nail head clears the blades. The nap of the grass must go in the same direction.

Infill

We recommend using Pup-Fresh™ Infill and Odor Control. It is 100% pure Zeolite, an all-natural, odorless, non-toxic mineral that neutralizes urine and helps keep Pup-Grass looking new. It will also help reduce surface temperature. It is safer for dogs and the environment than ground rubber or silica sand.

Pup-Fresh 100% Pure Zeolites, an organic, pet-friendly **infill** that is the best option for turf. In addition to maintaining the upright position of the blades of, traps any pet odors, and eliminates remaining moisture making it perfect for Pup-Grass® and pet owners.

You can apply **Pup-Fresh**™ evenly with a fertilizer spreader or hand broadcast it. Once applied, use power or a push broom to fill in any Pup-Fresh™ remaining on the surface. Brooming Pup-Fresh™ allows the infill material to migrate between the blades. The infill will fluff the Pup-Grass and provide support for the blades as well as superior odor control. The last step is to hose the area, to remove dust.



Pup-Drain™

When installing Pup-Grass over concrete or other hardscapes, you will need to use Pup-Drain™, a polymeric drainage sheet with pressure formed raised angles. The channels elevate Pup-Grass and allows airflow between concrete and Pup-Grass while also diverting liquids. Pup-Drain also protects the backing of Pup-Grass to prevent premature wear. The non-perforated style will also prevent urine from soaking into the concrete. Therefore, we specify Pup-Drain for all the reasons stated.

Step One

Clean area thoroughly and let dry. If needed, use a leveling compound to even out the surface of the concrete.

Step Two

Unroll the Pup-Grain and allow it to relax from warm sunlight. Cut Pup-Drain the size needed for your project. Make sure the cuts are even. Butt together the two pieces and use duct tape to hold the pieces together temporarily. Once you have joined the sections of Pup-Drain, you can direct glue Pup-Drain to concrete. Use a roller to remove any bubbles so that it lies perfectly flat.

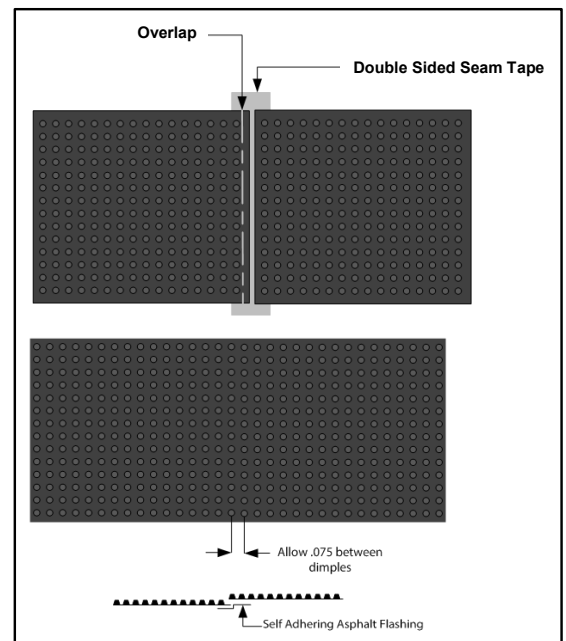
Step Three

We recommend using The WonderEdge™ System. Wonder-Edge comes in 8' sections and can be nailed or glued directly to the finished grade. You will need to allow for two inches on all sides so that the grass can be tucked into the WonderEdge™

Installing Pup-Drain™



Pup-Drain™ Seaming Detail



WonderEdge™



Step 1.

Assemble Frame. Use corner and straight connectors . Secure corners with screws.

Step 2.

Square up the WonderEdge Frame Secure WonderEdge using double sided outdoor seaming tape, Epoxy Glue or Concrete Nails.

Step 3.

Seam drainage mat using double sided seaming tape.

Step 4.

Cut Drainage Mat approximately 4" shorter than frame so it does not cover nail tabs.

Step 5.

Once edging and drainage mat are secure, cut Pup-Grass to size and place over drainage mat.

Step 6.

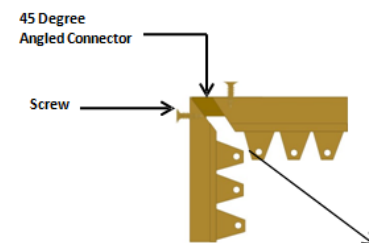
Tuck sides of Pup-Grass under lip of WonderEdge. Stretch Pup-Grass tight and nail one side using concrete nails every 3' -4' on edges and as few as possible in center of Pup-Grass.

Before nailing make sure that Pup-Grass is stretched tight and there are no visible wrinkles or bumps in the material.

Step 7. Use a broom to brush up nap.



Connection Details



Cutting Pup-Grass®

Most Carpet and Artificial Grass has a material called selvage on the edges. We trim the Excess material before we ship, however in some instances, it may still be on a roll, and you will need to cut it off. Measure the area, then measure and mark the Pup-Grass. Use a straight edge as a guide when cutting edges that will be joined. Always cut between the green lines to avoid excess shedding of the edges.

Cutting Pup-Drain™

Measure and mark the Material Use heavy-duty scissors or shears and cut between raised bumps, which will act as a guide and allows for a reasonably straight cut.

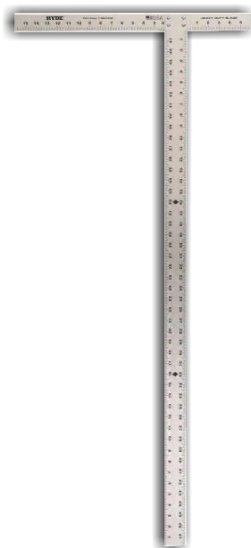


Materials Needed:

Base Rock
Concrete Sand
Weed Barrier (Optional) make sure it is fast draining weed barrier.
Turf Nails 6" Galvanized
Seaming Tape 6"

Tools Needed:

- Shovels
- Landscaping Rake
- Wheel Barrow
- Compactor
- Fertilizer Spreader
- Hose
- Push broom
- Utility knife
- Measuring tape
- Straight edge
- Chalk line



Straight



Cutting Snips



Carpet Knife



Chalk Line



Marking Pen