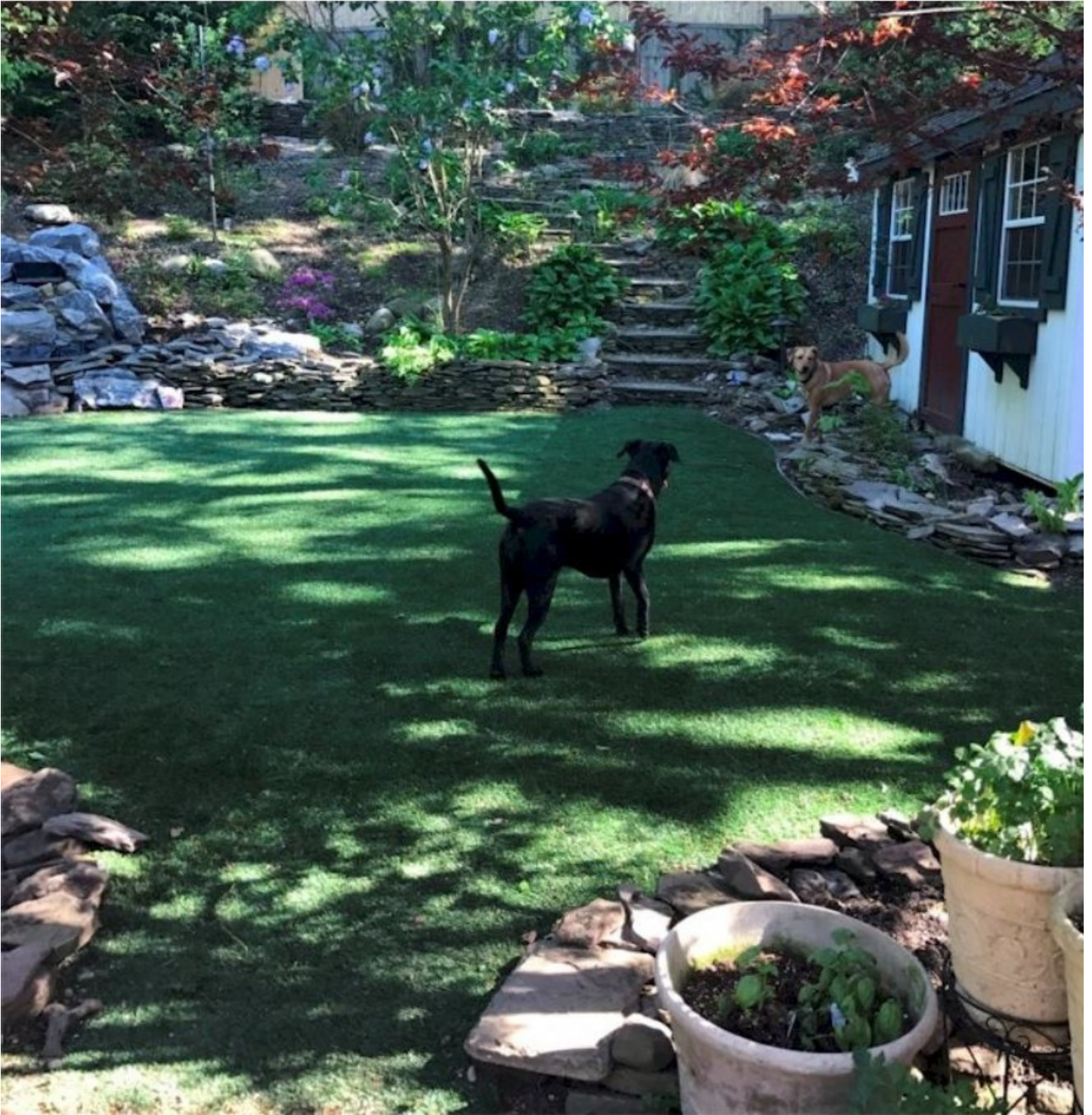


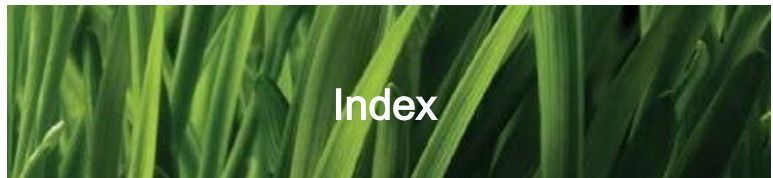
PupGrass®

Artificial Grass Built for Dogs



Installation Guide

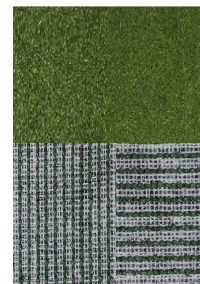




1. [Cover Page](#)
2. [Index](#)
3. [Important Notes](#)
4. [Finding the Right Material](#)
5. [Site Preparation](#)
6. [Installing Over Soil](#)
7. [Installing Over Concrete](#)
8. [WonderEdge™ And Pup-Drain™](#)
9. [Installation Tips](#)

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 doesn't 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 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 large volumes 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 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:

When Preparing the area, if you have a sprinkler system we recommend you keep it place it is a time and water saver when it comes to cleaning the Pup-Grass. Sprinklers will flush residue particles through the backing and into the base material. A sprinkler system will become more valuable than you ever imagined. It will also cool the grass on hot days. You only have to turn the water on for 5 minutes to reduce the temperature. The other option is to use the hose and manually flush the area.

Material Clarification

Base Rock is not pea gravel, garden rocks mulch etc. it is a very 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 use the following key words Sand, Gravel, and Crushed Stone. Descriptions on Page 3

Chat and Decomposed Granite Although these materials compact, they also wash away quite easily. There are stabilizer and chemicals that can be added but they are toxic to dogs. Aggregates are a natural product that are mined in many parts of the country's and can be toxic to people and dogs.

Clay Soil is composed of very fine particles, usually silicates of aluminum and/or 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 key words “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. In addition

we have listed other materials that some companies use but they are not the correct material and if a sales person tries to convince you, that these are the right mate-

Important Notes:

YES



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 ❌

YES



AB Or Class II Base Rock

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

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 certain all organic materials is 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 is 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 wheel barrow several piles of the base material about 2'-3' apart. Once you have the piles placed, use a shovel to evenly distribute the material. 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

Properly compacted base is key to a good 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 a 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 the edges of Pup-Grass. The most common edging materials are bender board, Poly-Board, poured in place concrete, Bricks 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. This will allow the material to become more pliable and easier to stretch. .



Fig 1.



Fig 2.



Fig 3.



Fig 4.

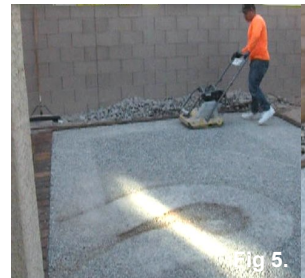


Fig 5.



Fig 6.



Fig 7.



Fig 8.

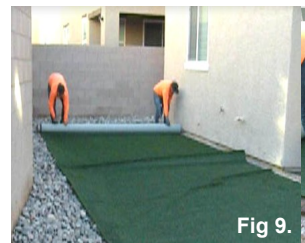


Fig 9.



Fig 10.

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 nails. regardless of which you choose, make certain 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 is required, trim the edge of each piece so that they are very straight. Once the edges of each roll are straight, lay them adjacent to each other on the base 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 in each side of the seam.

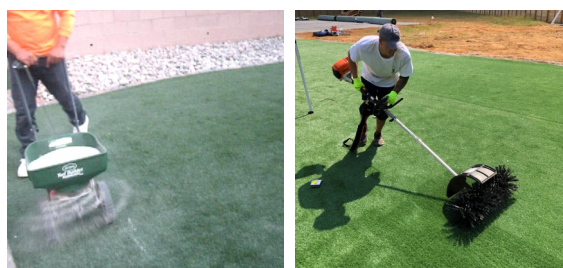
After the seams have dried, it is time to secure the perimeter, using 6" turf spikes nail the perimeter, about every 3-4" apart. And 6-8" in the middle. When nailing, spread the grass blades so the nail head clears the blades. It is critical that the nap of the grass goes in the same direction.

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 help 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 is an organic, pet friendly **infill** that is the best option for artificial turf installation. In addition to supporting the blades of turf, Zeolite efficiently traps urine and eliminates neutralizes ammonia which will eliminate much of the odors 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 a 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. This 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 also 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-Grass and allow 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 temporarily hold the pieces together. 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 lays perfectly flat.

Step Three

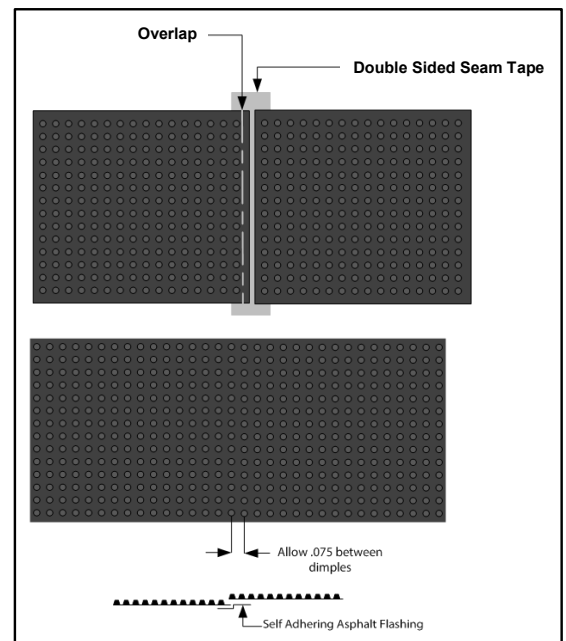
We recommend using The WonderEdge™ System. WonderEdge comes in 8' sections and can be nailed or glued directly to the finished grade. You will need to allow for two inches on all sides so that the grass can be tucked into the WonderEdge™

See Page 8 for more details

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.

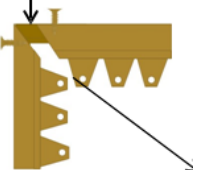
Step 7. Use a broom to brush up nap.



Connection Details

45 Degree
Angled Connector

Screw





Cutting Pup-Grass®

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

Cutting Pup-Drain™

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

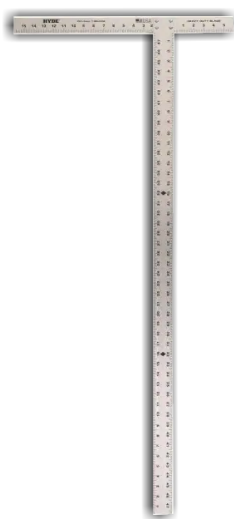


Materials Needed:

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

Tools Needed:

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



Straight Edge



Cutting Snips



Carpet Knife



Chalk Line



Marking Pen