Professional Installation Guide

Disclosure:

This guide is for the individuals or contractors who wish to install an artificial turf project. ArtificialTurfExpress.com makes no representations or warranties regarding the following installation information. This guide is intended to inform the individual about the processes involved in installing artificial turf and is not intended to replace the services of a professional, qualified contractor.

Introduction:

The installation of artificial turf will add years of beauty to your home or business, while reducing maintenance and water costs.

After years of contractor and customer feedback, ArtificialTurfExpress.com has gathered and organized this information in order to provide you the most detailed and comprehensive installation guide in the artificial turf industry! All turf installation instructions are broken down into four key areas: Project Planning, Ground Preparation, Artificial Turf Installation and Artificial Turf Care.

The goal of the ARTIFICIALTURFEXPRESS.COM Professional Installation Guide is to address almost every issue experienced in the field during installation and give you the latest installation and maintenance tips, as well as, techniques to help you save time and money.

Time Line:

You should typically allow 2-3 days for most projects less than 600 sq. ft. additionally, projects may be completed faster or slower depending on the size of your project and the experience of your crew.

Installation Temperature:

Artificial Grass should be installed at 50 degrees Fahrenheit and above.

Project Tools:

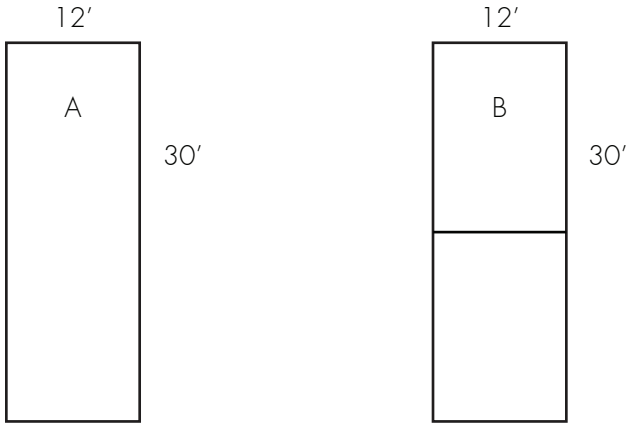
Before installation you need to have the right tools for the project. It is important to understand what each tool function is and how it works for your artificial turf installation. Most tools can be found and purchased or rented from your local home improvement store or rental agency. In many cases power tools can be substituted with hand tools, they may help make the process easier and more efficient.

List of Tools you may need *(See Photo Index- Tools):*

Sod Cutter, Roto-tiller, Shovel, Hoe, Wheelbarrow, Measuring Tape, Spray Paint or Chalk Line, Landscape Rake Grading Rake, Broom, Fertilizer Spreader, Plate Compactor, Hand Roller or Plate Tamp, Trowel, utility Knife, Seam Tape or other seaming solution, Glue, Drop Spreader, Hammer, Staples, screws and Bender board.

Design Size:

In order to determine the best size and shape for your project, you should keep in mind that artificial turf is 15 FEET WIDE and up to 100 ft. long. Artificial turf can be seamed together to accommodate larger widths. The idea is to have the fewest amount of seams as possible without having excessive waste. Multiply the areas width and length based on 15 foot width rolls. This is how much turf you will need for your area. When you place your turf order, it should always be 15 foot wide by your determined lineal (Length) feet, making sure to allow for extra turf for trimming and seaming. In the illustration below, you have one lawn that is 12 feet wide and 30 feet long. In example A you would purchase 30 lineal feet (30x15) of turf to cover the length and cut off 3 feet of the width to have a seamless installation, while wasting 90 square feet of turf. In example B you would purchase 24 lineal feet of turf (24x15), cut it into 2 sections of 12x15, place them side by side lengthwise and have your entire area covered without any waste at all.



Please make sure that you measure your area at least twice and review your measurement with an ArtificialTurfExpress.com consultant. Additionally, the turf weighs about one half pound per square foot for infill type turf and three quarters of a pound per square foot for low infill type turf.

Bordering:

For most borders you can use bender boards or existing cement, pavers, etc. If you are planning on installing any edging, curbing or borders, please install prior to cutting the turf in order to get a more precise measurement. If there is existing curbing or edging make sure that you measure perfectly in between the inside area of each of the borders.

If your installation is going around trees, bushes, or any utilities such as light poles and air conditioning units, you must mark around these areas in order to account for the turf edges. Typically you should allow at least 6" radius area around the bases of any trees, bushes and structures.

WARNING: Check for buried plumbing or electrical lines that may be located in project area.

Current Irrigation:

Check your area for irrigation heads. Once identified, be sure to cap them off below ground level or have them removed.

GROUND PREPERATION

Measuring & Outline:

Mark the width and length of each area by using irrigation flags or landscape stakes. Then use spray paint or chalk to mark your turf rolls. Note the direction you have decided to lay the turf when you did your planning.

Removing Topsoil:

Utilizing a Roto-tiller or picks and shovels, break up the ground inside the installation area to a depth of at least 4"; remove the sod and soil from the area. Also remove any large rocks or roots that are unwanted.

ARTIFICIALTURFEXPRESS.COM Tip: Remove about an inch less sod and soil in the middle of the area so that it will require less base material to form the "crown" in the center of the yard.

Rough Grading:

With a landscape rake, rough grade your turf application areas. Then use a garden hose to lightly water the areas and then compact the area with a plate compactor or a heavy drum roller. Keep making passes over the project area until you have ensured that your compaction is acceptable. 95% compaction is recommended.

ARTIFICIALTURFEXPRESS.COM Tip: If your area has a high clay concentrate or is too moist and wet, then spread a Small layer of crushed stone over the area before you do your compacting or use geotextiles. Geotextiles are permeable fabrics which, when used in association with soil, have the ability to separate, filter, reinforce, protect, or drain. If there is any water that comes to the surface or standing water, then use a Geotextile fabric to separate the sub-base from the softer soils.

WARNING: Make sure your area maintains at least a 1% grade to allow for proper drainage.

Weed Killer:

It is a good idea, once the ground in completely cleared, to apply a weed killer and a grass blocker spray to the area. You need to ensure that any vegetation will not grow under the turf area in the future. You may also use a weed barrier material by cutting it to size and use sod staples to hold it in place.

Edging Installation:

Once the area has been cleared and the weed killer is applied, it is time to install your selected edging if it is not already in place.

Base Type:

The purpose of base material is to provide a stable unchanging surface for your new synthetic lawn and allow water to drain through naturally into the soil below. Most manufacturers recommend 3/4" down to 1/4" crushed drain rock as your primary base and then use fines (Smaller sand like material) as a thin top coat to smooth out any roughness of the base layer. These rocks can be found at your local rock yards and may have several different names. You want to avoid using a rounded rock, like pea gravel, as they will not compact well and are too rounded. You can use most any base that compacts smooth, hard and allows water to pass through.

ARTIFICIALTURFEXPRESS.COM Tip: Home owners and Pet Facilities with drainage problems have experienced faster and better drainage of dog urine with a 3/4" rock as a sub base.

Base Depth:

Although sub-base heights may vary from project to project, the standard recommendation is 3" of compacted base about 1" below the finished grade for outdoor projects.

Base Application:

Now that you know what base you are using and the depth is established, you can place your order for your base rock based on the following formula; Approximately 1 TON (2,000 LBS) of rock base per 100 Square Feet of artificial turf will give you a 3" sub-base. Spread the base material around the area and then even the sub-base using the back of a grading rake or similar yard tool.

ARTIFICIALTURFEXPRESS.COM Tip: When spreading the base material, shape the area to form a slight crown in the middle of the turf that gradually slopes down towards the perimeter. This will give the turf a more natural look.

Grading:

Using a sod roller or plate compactor, you will tightly compact the sub-base up to 95%. The goal is to have the sub-base as smooth as possible, yet solid when walked upon. In order to achieve this compaction you may have to wet the area, without too much saturation, re-compact several times until

level and at the recommended grade of 1%.This should allow water run off the proper drainage. For those areas with depressions, simply add a small amount of the fines material until compacted level. All bumps and holes should be eliminated from your sub-base, because the undulation on the surface will be visible once the turf is applied. You may have to repeat the process a few times, so please allow sub-base to dry then check for any inconsistencies and make adjustments to the areas with fines. Repeat until satisfied. The final base should be 1" below the top of your border.

ARTIFICIALTURFEXPRESS.COM Tip: To avoid creating ridges in the sub-base, avoid making sharp turns with the plate compactor.

Turf Direction:

Because the artificial turf is directional, you must make note of the fibers directions (grain). Determine which direction you will roll out your turf and how the turf will be laid down and seamed. Most projects tend to face towards the viewer's perspective. If possible, you must always apply the turf with the fibers of the turf against the slope of your application area. Once you have made your decision on what direction your turf will go make sure to always run the fibers in the same direction. If you do not lay the turf with the fibers going the same direction, the seams will be very obvious.

ARTIFICIAL TURF INSTALLATION

Turf Preparation:

Roll the turf out over a clean flat surface or the prepared base, making sure not to drag it across the sub-base. Additionally, if you have a seam or another roll of turf, you want to make sure that the blades of artificial turf are going the same direction you had in your planning design so the two pieces match up. It is important to let the artificial turf sit out in the sun for a couple of hours. This allows the blades to begin to stand upright, relax from being rolled up and allow any wrinkles to settle out of the backing. Once relaxed, lay your turf accordingly and for areas that will have seams, cut off the un-tufted (selvedge) edges (2-3 seam rows) of each roll and lay them onto the base in your intended direction, then lay your next artificial turf roll adjacent to the first one leaving 1/16-1/8 inch gap between rolls. DO NOT overlap the rolls.

Turf Cutting:

Whether it is a winding path or an existing new or old border, the artificial turf can be custom cut to fit your yard. You will need a utility knife or a razor knife. Most contractors mark the back of the turf with a marker pen where they decide they are going to cut. Once this is accomplished you can roll the turf back and custom cut the turf with your utility knife. With the area's that are overlapping, trim the overlapped roll to match the first roll that you trimmed. Your cuts should leave the two pieces as close as possible without actually touching. Then you can trim the turf to match your edges around the borders.

WARNING: DO NOT cut through any of the artificial turf that may be underneath the part you are cutting.

Seams:

For those artificial grass projects requiring seams, this is probably the most critical part of the installation process in order to make your artificial turf product look realistic. It is always a good idea to practice the seaming process before you seam your project area. Make sure that you take your time when seaming your project. Remember to trim at least one seam row off of both rolls you're seaming together.

By now your base should be completed and your turf rolled out onto the base. Now mark the areas where your seam will be with a chalk line. Place the 12 inch seaming tape down on chalk lines where you will have your seams. Next you will prepare the turf by cutting both edges of the rolls to be seamed, using your cutting tool (Utility Knife or Razor Knife) you want to cut as close to the second tuft row as possible (2-3 seam rows is okay). This eliminates waste and should give you the proper edges for seaming.

Seaming application area should be clean and free of oil and debris. Apply Adhesive to seam tape or surface via trowel, or by simply pouring over the surface area. A light mist or spray of water over the adhesive will accelerate cure time (only a light mist is needed as too much water will cause foaming therefore weakening the bond).

Allow 3-5 minutes wait time for adhesive to absorb surface and atmospheric moisture, then lay down turf. Wait 10-15 minutes then press seams ensuring contact between both surfaces (weighted roller may be used for field applications).

WARNING: Do not pull on turf as it is bonding as you will re-start the bonding process. Allow seams to cure with atmospheric and surface moisture.

After 25-35 minutes of cure time, press or roll seams again ensuring contact between both surfaces. Adhesive will be hard enough to begin any brooming after 2-3 hours and be completely cured after 24 hours.

This process should be simple, but any other questions or concerns should be addressed by your ArtificialTurfExpress.com specialist.

Perimeter:

Secure the perimeter with your sod staples 8 - 12 inches around the edges.

Another option for high traffic areas is to install 2x4 bender board or pressure treated wood along the perimeter at the same level as the base (1" below the hardscape) then using galvanized roofing staples and a pneumatic stapler, staple the artificial turf every 6"- 8" inches to the wood.

Infill:

There are several types of infill used for artificial turf including silica sand, Zeofill, crumb rubber, acrylic coated sand, coconut fibers, cork and many more. The infill product is put in between the blades of the artificial grass products to deliver a complete solution allowing the blades to stand up, improve durability in traffic zones, and emulate the look and feel of natural grass. Infill is recommended in all artificial turf products to enhance usability and durability at the following rates: In non-thatch turf use about 5 pounds of mixed infill, such as sand or Zeofill & Crumb rubber, In a lighter weight thatched turf

(under 60 ounces of face weight) 1.5 pounds of infill per square foot of artificial turf, In a heavier weight thatch turf (over 60 ounces of face weight) 2 pounds per square foot of artificial turf.

ARTIFICIALTURFEXPRESS.COM Tip: ArtificialTurfExpress.com recommends using Zeofill infill. Zeofill is the best product for artificial turf and will help control pet odors, mold and bacteria growth, as well as, keep the artificial turf project cooler for a longer period of time when moistened.

After the artificial turf installation is completed and glue & seams are set, make sure the infill and artificial turf are dry when applying the infill. Brush or rake the artificial turf with your desired tool such as a power broom, push broom or leaf rake.

Apply the infill EVENLY EVERYWHERE one layer at a time using either a drop spreader or a broadcasting spreader to achieve recommended infill usage rate. Take your time, pay attention to how much area you are covering with one or two bags of infill. You should walk at a CONSISTENT speed and adjust speed depending on how fast the infill is falling out of your spreader.

For hard to reach or small areas such as corners or against walls where a spreader cannot reach, you can hand spread these areas. Power broom, brush or rake again, repeating these two steps until you are out of infill or have reached your desired/recommended level of infill.

In the event there are any uneven areas of infill that the power broom, brush or comb cannot fix easily, use a leaf blower about 3 inches from this area and the infill will quickly disperse. Feel free to level out any other areas especially corners and walls with the blower also. Once you are happy with your infill and brushing, generously hose the entire project area down evenly. Consider this the last self-leveling step. You will be able to manipulate the infill once its dry again, which may take a few days.

WARNING: DO NOT INFILL while the infill material or artificial turf is wet; wait for dry conditions.

Finishing Touches:

Using a power broom, leaf blower, push broom or leaf rake you can quickly clean up the area and this also helps agitate the blades of artificial grass helping the stand-up better.

ARTIFICIAL TURF CARE

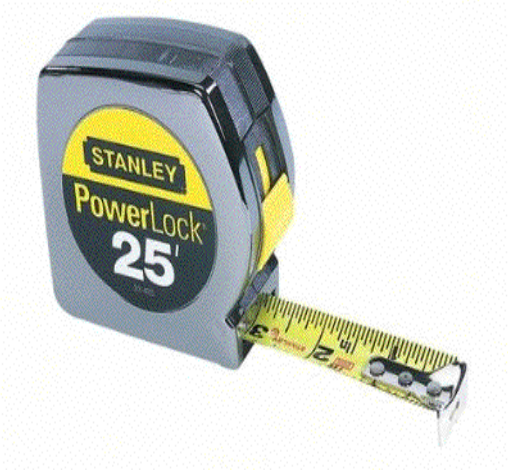
Turf Care:

Although, artificial grass is virtually maintenance free, you will need to care for your lawn in the following ways to help maximize the life span or your artificial lawn:

Typically, you will use a push broom, rake or blower to care for your artificial turf. You should brush, blow off or rake your grass as needed. Water can be used to clean up after any spills. You may also use Enzyme type cleaners if you have pet area odors. From time to time a few weeds may grow in the area between the turf and borders or elsewhere on the turf; you can use Roundup or other mild weed killers or simply pull them out as they will not grow through the turf. Additionally, in areas where the temperature is over 100 degrees, water can be used to cool off the grass for children if the grass gets too hot. However, the shade areas of the turf will be always be cool enough for play.

	
Hand Roller	*Plate Compactor*
	
Plate Tamp	*Bender Board*
	
Utility Knife	*Screws*

 *Flathead Shovel*	 *Spade-point Shovel*
 *Staples*	 *Hammer*
 *Drop Spreader*	 *Fertilizer Spreader*

	
Chalk Line	*Measuring Tape*
	
Push Broom	*Garden Hoe*
	
Grading Rake	*Landscape Rake*

Sod Cutter

Roto-Tiller

Wheel Barrow

Seam Tape

Hand Trowel

Turf Glue