

ARTIFICIAL GRASS

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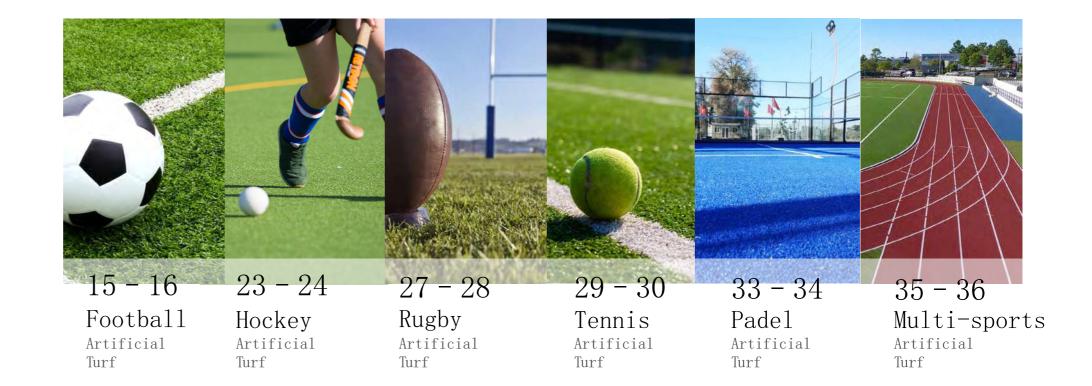
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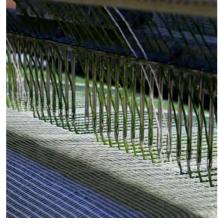
CHINEE Grass

Chinee Artificial Grass Co., Ltd. is a company belonging to Chinee Group Co., Ltd. Our products have passed CE certification, with small profits and quick sales. We are committed to swift market development, ensuring product quality, and providing top-notch after-sales service. Our company integrates research and development, production, Moreover, our products undergo multiple rigorous inspections from production to delivery to guarantee they meet customer requirements.

We are committed to the development and production of artificial grass, aiming to provide better sports and life experience for our customers.

Customer satisfaction is our ultimate goal, and we provide excellent pre-sales and after-sales service. Our products are exported worldwide, and we possess extensive international market experience. Whether you are a distributor, partner, or end-user, we welcome collaboration to explore partnership opportunities and meet your needs.



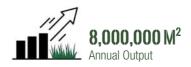






Advanced Equipment

Every figure marks the effort and devotion 5Z[`Warass made in the process of artificial grass production and R&D. We will also continue to improve our production process and production equipment to provide our customers with better services.



















What Makes Chinee ARTIFICIAL **Grass Different?**



Standardized Production

- Selected raw materials for good product quality.
- Excellent process ensures a long lifespan.
- Sold well and highly recognized by our customers.



Diversified Products

- A wide range of products for different applications.
- Superb customization services for special needs.
- Rapid delivery makes we seize every opportunity.



- Senior technicians escort for artificial grass.
- Fast response solves problems promptly.
- Considerate services make your free from worries.

RESEARCH & DEVELOPMENT

As the world's leading Artificial turf manufacturer, Chinee Artificial Grass is always committed to technological innovation and product upgrading. We continue to develop more durable, safer and more natural artificial turf to meet various needs. Our research and development team continues to expand the application and function of artificial turf. For example, UV-resistant turf grass for areas with strong sunlight has a longer service life; Anti-bacterial lawns designed for playgrounds provide a safer environment for children; And 100% recycled artificial grass, demonstrating our commitment to environmental sustainability.



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ARTIFICIAL GRASS

Many countries across the world are subject to geographical location, extreme natural conditions and their economic conditions. Moreover, a considerable number of natural grass courts must be added with ceilings and other facilities, which makes the laying and maintenance of natural grass become more difficult. Under such conditions, artificial synthetic grass stands out due to its great advantages.

Artificial grass is generally made of PE, PP, PA (nylon) yarns or synthetic fibers of PE and PP, overcomes the inherent disadvantages of natural grass. Over a long term of development, artificial grass technology becomes increasingly mature and many indicators get close to natural grass, and can perfectly meet all technical requirements of professional sports competitions on ground surface. Now it is also widely used in residential and commercial activities.

Features



Natural looking

It looks exactly real like natural grass.



High quality and cost-effective

We can offer high quality, cost-effective artificial grass solutions.



High surface evenness

If offers consistent ball rolling and rebound paths.



It never shades color due to sun exposure.



Weather resistant

Suitable for all weather conditions.



Easy to clean and maintain

It is easy to maintain when compared with natural grass.

Comparison before and after laying artificial grass

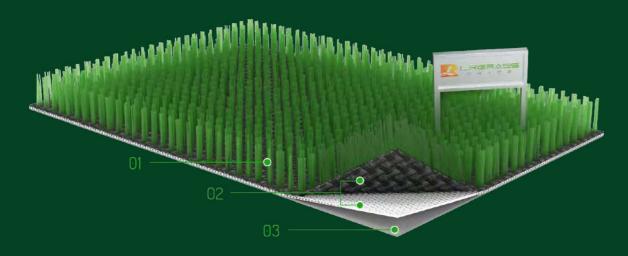


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STRUCTURE

Artificial grass consists of grass fiber, backing and coating. We choose high quality grass fibers, aiming to bring users the exact same experience effect as natural grass. Backing made of different materials can meet various needs of customers to ensure the lifespan of artificial grass.

We can offer both traditional coating, and independently-developed recyclable coating and eco-friendly coating. They not only play the role of securing the artificial grass, but also do no harm to the environment.

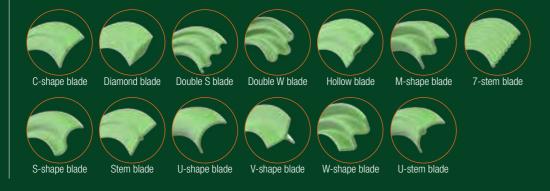


01.Grass Fiber

Monofilament Fiber

Monfilament fiber features thin, high density and high degree of overall simulation. Its structure is similar to natural grass. It has a long lifespan and better wear resistance than fibrillated grass fibers and is mainly used in sports venues.







Thatch

With good resilience and close to natural grass looking, it is mainly used as landscape turf. Mixed with monfilament fibers, it plays the role of support and enhances the lawn density, making the lawn denser and more vivid. Additionally, it also used in various sports pitches and works as golf turf, hockey turf, etc.

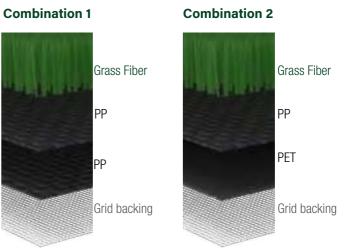


Fibrillated Fiber

Fibrillated fiber has a wide tape and limited applications. It is widely used in basketball and tennis sport fields.

02.Backing

It is generally a triple-layer structure and is the material that sewn on the artificial grass plastic fibers. It features little shrinkage, high tensile, non-deformation, UV-resistant, ant-aging and smooth surface and ensures the lifespan of artificial turf.





O3.

Backing glue is a material necessary for fixing artificial grass. The two most popular coating materials are styrene butadiene rubber (SBR) and polyurethane (PU). PU offers good coating effect but very effective. There is also a new product - recyclable non-adhesive PRT.



**** Eco-Friendly, Recyclable Coating

It is a new type of eco-friendly, recyclable coating with good air permeability, super water permeability, strong turflock, eco-friendly, recyclable. In addition, it is lightweight and requires a low transportation cost.



*** Polyurethane (PU) Coating

The performance of artificial grass with PU coating is very stable and will not expand even at high temperatures. It does not absorb water or liquids. Additionally, it is easy to cut, install and transport and unrecyclable.



Recyclable Non-Adhesive
PRT Coating

It is a new hot melt coating with excellent eco-friendly performance, super water permeability, strong turf and recycling property.



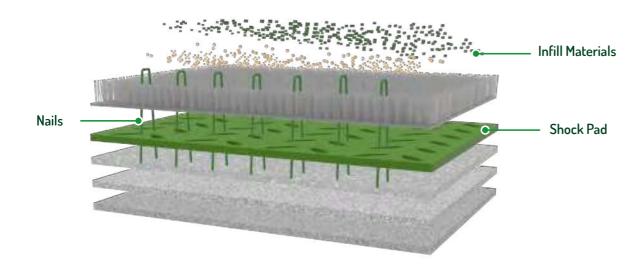
★★ Styrene Butadiene Rubber (SBR) Coating

SBR is a traditional coating material and is also very popular now. However, it is easy to peel off under extreme moisture conditions.

COMPONENTS



Artificial grass laying components include infills, shock pads and nails. Infills are a key part of the artificial turf system as it ensures grass fibers remain upright like natural grass. Shock pads get inserted between the artificial grass and the base as a shock absorbing layer, and possess an elasticity and cushioning effect. Nails are used in artificial grass installation for fixing and are also known as the adhesive that holds the whole structure of artificial grass together.



Infill Materials

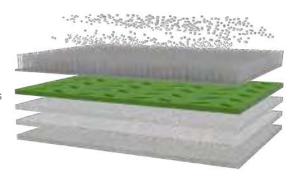
Infill materials are a key part of the artificial turf system as it ensures grass fibers remain upright like natural grass. Meanwhile, it also ensures that the shoes have a good grip. Additionally, it can also act as a cushion and maximize its sliding characteristics to reduce the strain on muscles and joints. We offer a variety of infills for you to choose from. We can recommend the right infills to make our customers get a better experience effect from artificial grass.

- Act as a ballast to keep the turf weighted down and level
- Improve the resilience of turf backing.
- Help to extend the service life of artificial grass



Shock Pad

Shock pads get inserted between the artificial grass and the base as a shock absorbing layer, and possess an elasticity and cushioning effect. As a necessary material for new eco-friendly turf, it solves turf drainage problem by punching or slotting process. High performance shock pads offer natural cushioning to reduce the wear of turf backing, extend the lifespan of artificial turf and improve the safety of players during playing sports.



• Shock absorption.

Good shock absorption and resilience.

Unique design.

Good drainage, no expansion or shrinkage and the dimensions are always kept stable.

Quick installation.

Lightweight shock pad, easy to install and operate.

Repeated use.

It can be removed from one field and reused in other fields.

• Recyclable.

Shock pads that can not be reused are recyclable.



Square hole





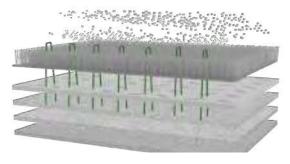
Cross

Leave-shape

Nails

Nails refer to U-shape nails and straight nails used in artificial grass installation for fixing. They are generally made of hot dip galvanized steel wire with high gloss properties, making them durable, economical, and environmentally friendly (no soil pollution). These nails have a long lifespan and are reusable. They are known as the adhesive that holds the whole structure of artificial grass together.

- A simple, fast and cheap way for artificial grass installation.
- Eco-friendly nails do no harm to soils.
- Be safe for both pets and kids
- Firm enough for reuse
- Put it anywhere you need it in the simplest way





Galvanized

U-shape nails



Galvanized

head coated

U-shape nails



U-shape nails



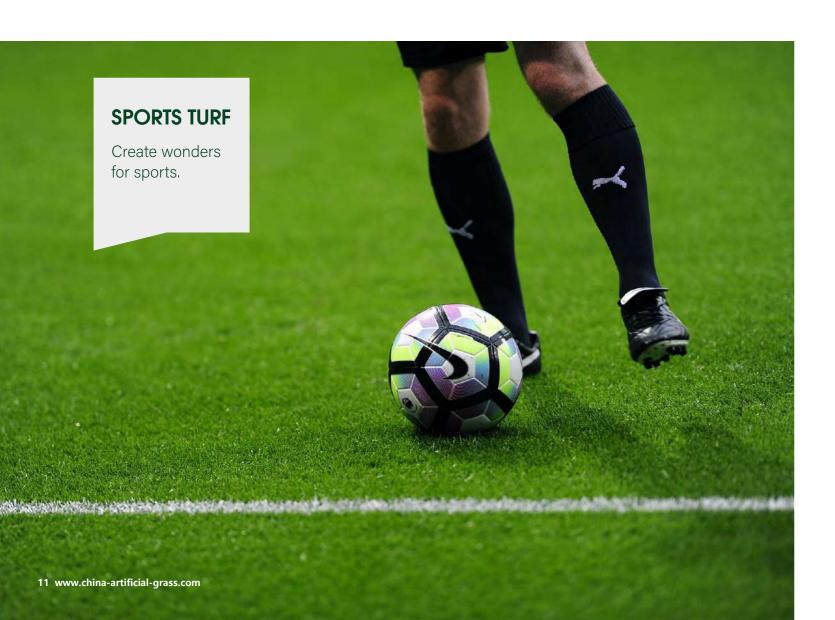
Galvanized & Straight nails powdered coated

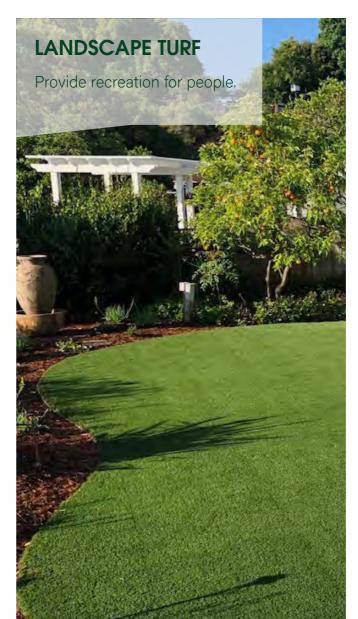
ARTIFICIAL GRASS

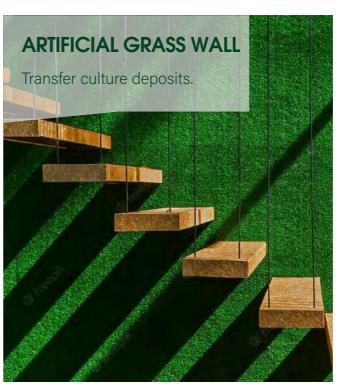
APPLICATION

Artificial grass has the same appearance like natural grass. It features good surface flatness, good weather resistance, easy to clean and low maintenance costs, and is widely used in sports courts of both major national and international events. As the features of artificial grass are gaining an increasing attention, it is also used in kindergartens, landscapes and background wall fields to bring better experience for more people.

Furthermore, the environmental protection and recycling of artificial grass are getting an ever-growing attention of researchers. At Chinee Artificial Grass, we are committed to the study of this task. So far, we have developed eco-friendly, recyclable coating to ensure it will not cause damage to the environment while meeting the users' demands on artificial grass.















SPORTS TURF

Sports artificial turf is artificial grass specially designed for sports and various sports events. Material selection and manufacturing process are adjusted according to the characteristics and requirements of every sports, aiming to provide athletes with exact the same sports experience as natural grass.

Artificial grass overcomes the shortcomings of natural grass arising from climate and maintenance to ensure the smooth progress of the match and bring better sports experience to athletes.















FOOTBALL

GOLF

RUGBY







HOCKEY

MULTI-SPORTS

MORE SPORTS

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Eco-friendly Grass for Football Field

AG08-1



- Pile Height(mm): 50
 Density(stitches/sqm): 10500
 Material: PE
 Color: Light Green+White+Dark Green
 Professional Training Ground Artificial Turf





- Pile Height(mm): 25
 Density(stitches/sqm): 21000
 Color: Light Green+Army Green
 Application: Middle & primary school football field, training court and activity center.







AG08-2



- Pile Height(mm): 50
 Density(stitches/sqm): 9800
 Color: Light Green+Army Green
 Non-professional football fields, football activity centers and other venues.





- Pile Height(mm): 50
 Density(stitches/sqm): 10500
 Material: PE
 Color: Light Green+Army Green
 Application: International Football Match Field, Professional Training Court, Top Football Club, School Court.



Infill Football/Soccer Grass Artificial turf structure



Softness

PE yarns are known for their soft touch, making them comfortable for players and pets to run and play on.

Density

PE yarns can be woven to varying densities. Higher density yarns provide more support to the infill, which can help to prevent compaction.

Durability

PE yarns are resistant to UV rays, which can cause other materials to break down over time. This makes PE yarns a durable choice for outdoor use.

Colorfastness

The color of PE yarns is resistant to fading, even after long-term exposure to sunlight.

Resilience

PE yarns have high resilience, meaning they can recover their shape quickly after being compressed. This is important for maintaining the appearance and evenness of the playing surface

Non-toxic

PE yarns do not contain harmful chemicals, making them safe for pets and children

In summary, PE yarns used in filling type artificial grass have a soft, durable, and resilient structure, making them safe and comfortable for athletes to play on. They are also resistant to UV rays, colorfast, and non-toxic, making them a smart and sustainable choice for artificial turf installations.



Infill Football/Soccer Grass

Artificial turf structure



Artificial grass backing

The backing of the artificial grass is usually made of a combination of PP,NET and an SBR latex layer. This provides strength, flexibility and durability to the grass system. Double PP layers with SBR layer also can be provided, it with more durability.

Drainage system

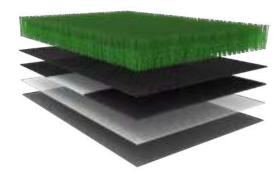
The drainage system is an essential component of the filling type artificial grass for soccer fields, and it includes a perforated backing layer and a network of drainage pipes beneath the surface. This system allows water to flow freely, ensuring that the field is always in optimal condition for play.

Overall, it offers excellent shock absorption and cushioning, and ensures that the field remains dry, even during heavy rain. The combination of a sturdy sub-base, a flexible backing, and an effective drainage system helps to ensure that the soccer field remains in top condition for years to come.





Non-Infill Football/Soccer Grass Artificial turf structure



Density (tufts/m²): 14700, 16800, 18900, 21000, 22050, 23100, 24150, 25200, 26300

Backing: PP+Net+SBR Yarns Types: Straight Yarns

Curly Yarns

Yarns Color:

Yarns Material:

Yarns Shape:

PE

S, Stem, W, Diamond, C

Pile Height:

25mm, 30mm, 35mm, 40mm

Width:

2 m, 4 m (Customized range from 1 m to 4 m)

Gauge: 3/8"

DTEX

10000, 12000, 14000, 16000













Non-infill Yarn

Short pile height

Shorter pile height better stability and durability of the turf.

High density

Yarns are tightly packed to provide a dense and uniform surface.

Softness

Softer materials ensure player safety, particularly in contact sports such as

High UV resistance

It is manufactured to resist fading and discoloration due to prolonged exposure to sunlight.

No need for infills

It doesn't require infill materials to stabilize the surface.

Better drainage

Yarns are designed with drainage systems that allow fast and efficient drainage of excess water.

Easy maintenance

Less maintenance and can be quickly cleaned without the need for specialized equipment.



Backing

Durability

The bottom layer of non-filling type artificial grass is typically made from durable materials that can withstand heavy traffic, shock, and wear and tear over time. This layer is often reinforced with fibers such as polypropylene or nylon, which help to strengthen the layer and prevent it from breaking down.

Water Permeability

The bottom layer of non-filling type artificial grass is designed to be permeable to water, which helps to drain water away from the surface and prevent water logging. This layer usually contains small holes and perforations that allow the water to move through the artificial grass and drain away.

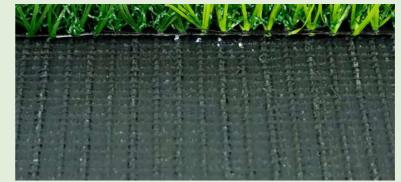
Strong Pull-Out Force

The bottom layer of non-filling type artificial grass is engineered to provide a strong anchor for the individual fibers of the artificial grass. High-quality artificial grass should be able to withstand strong pull-out forces, ensuring that the surface remains stable and safe for players.











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FOOTBALL FIELD STANDARD SIZE & AREA

11-man football field

Standard Size:

Including buffer zone:

[105+(2*2^[1])]*[68+(2*2^[1])]=7848 m²

Excluding buffer zone: Line width^[2]: 12 cm

105*68=7140 m²

Notes:

[1] Buffer zone is 2 m in width.

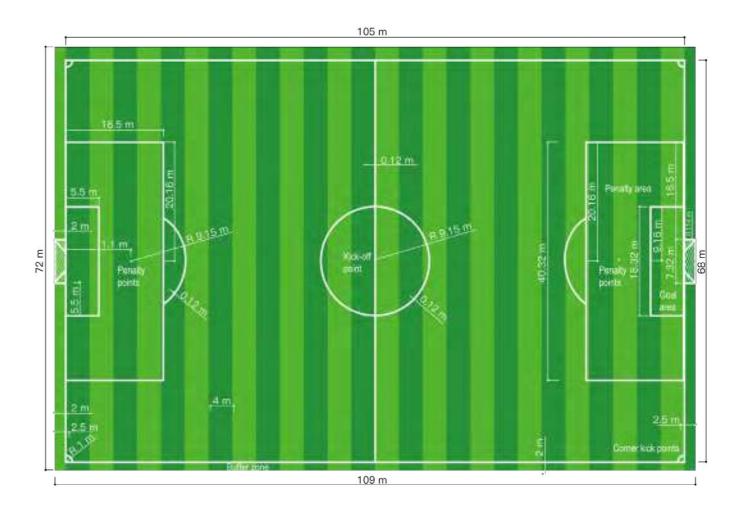


 $105-110\,\mathrm{m}$



Width

 $60-70 \, \mathbf{m}$



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^[2] The length and width sizes are sizes including line width.



PRODUCTS:





Height: 16 mm Density **84000**(tufts/m²)

Color







Designed for international competitions.

- Pile Height(mm): 16
- Density(stitches/sqm): 84000
- Material: PE
- Color: Bicolor
- Application: Fitness Center, Professional Hockey Field, Top Golf Courts, Exhibition Hall, and other Specialized Fields.

Backing

- PP + PP + grid backing
- PP + PET + grid backing
- PP + non-woven fabric + grid backing

Coating

- Eco-friendly, recyclable coating
- Recyclable non-adhesive coating
- PU coating
- SBR coating

Grass Fiber Recommendations







Artificial Grass for Hockey Field



Designed for national & local competitions, schools and and sports clubs training.

- SPile Height(mm): 12
- Density(stitches/sqm): 61000
- Material: PP
- Color: Army Green
- Application: Gate ball, Hockey, Golf, Exhibition Hall, Fitness Center, Office, Pavilion, and other Specialized Fields.

Height: 12_{mm} Density

61000(tufts/m²)







Backing

- PP + PP + grid backing
- PP + PET + grid backing
- PP + non-woven fabric + grid backing

Coating

- Eco-friendly, recyclable coating
- Recyclable non-adhesive coating
- PU coating
- SBR coating

Grass Fiber Recommendations



V-shape blade

HOCKEY FIELD STANDARD SIZE & AREA

Hockey field

Standard Size:

Including buffer zone:

[91.4+(2*3⁽¹⁾)]*[55+(2*2⁽²⁾)]=5746.6 m²

Excluding buffer zone:

91.4*55=5027 m²

Line width^[3]:

7.5 cm

Notes:



^[1] Buffer zone is 3 m in length.

^[2] Buffer zone is 2 m in width.

^[3] The length and width sizes are sizes including line width.



Requirements













silica sand infill or crumb rubber infill

Recommendations



Perfect Volleyball Rugby Turf



Since HIC (Head Injury Criteria) is an especially important performance index for rugby surface, we collaborate with World Rugby accredited laboratories to test the HIC for new and existing systems and whole system to Regulation 22.

- Pile Height(mm): 12
- Density(stitches/sqm): 84000
- Material: PA
- Color: Emerald Green
- Application: rugby, cricket, basketball, tennis, volleyball, badminton, etc.

Backing

- PP + PP + grid backing
- PP + PET + grid backing
- PP + non-woven fabric + grid backing

Height: Gauge: 12 mm 1/2", 3/4", 3/8", 5/8" Density

84000(tufts/m²)











Requirements



Grass fiber structure:

Wear and tear breakage shall be prevented from affecting the athletes' safety.



Grass fiber weight

8800 DTEX



Flatness

The ball rolls on artificial grass undirectionally.



Pile height

10-20 mm



Grass fiber density

High density grass fibers are selected to ensure the rebound performance and rebound speed of the tennis.



Silica sand infill.

Product



Aritificial Turf for Tennis



- Unique fibrillating structure
- Excellent playing performance
- High wear resistance
- Medium to fast paced court



High-Quality Tennis Turf



- Dense monofilament fibre
- Excellent playing performance
- Colour choice
- Medium paced court



TENNIS FIELD STANDARD SIZE & AREA

Tennis field

Standard Size:

Including buffer zone:

 $[23.77 + (2*6.4^{\text{(1)}})]*[10.97 + (2*3.65^{\text{(2)}})] = 668.13 \text{ m}^2$

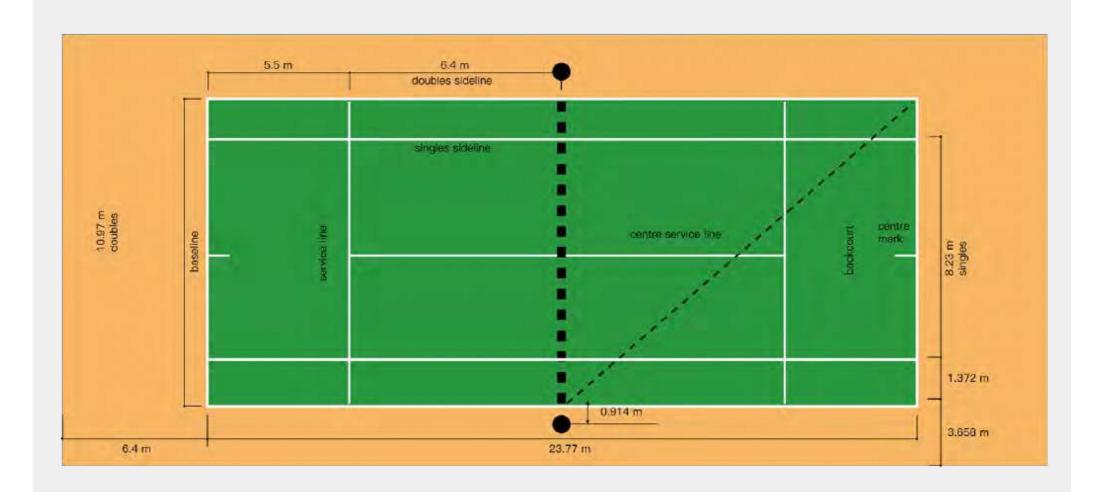
Excluding buffer zone:

23.77*10.97=260.76 m²

Line width^[3]:

5 cm

Notes:









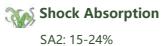
^[1] Buffer zone is 6.4 m in length

^[2] Buffer zone is 3.65 m in width.

^[3] The length and width sizes are sizes including line width.



Requirements



Rotational Resistance

25-50 Nm





≥30N



Tensile Strength of Joints

≥500 mm/h



≥60 N/100 mm

Product



PadelTennis Court Artificial Grass



- Pile Height(mm): 12
- Density(stitches/sqm): 52500
- Material: PE
- Color: Blue+Green+White
- Application: Padel Court, Tennis, Gateball, Golf,Rugby, Playground, Kindergarten



High Density Excellent Padel Turf

AG12-2



- Pile Height(mm): 12
- Density(stitches/sqm): 7500Material: PE/PP
- Color: Multi-color
- Application: Padel Court











Multi-purpose Volleyball Grass Badminton Turf Cricket Lawn

AG13-1



- Pile Height(mm): 10Density(stitches/sqm): 52500Color: Green
- Application: cricket, basketball, tennis, volleyball, badminton, etc.



Multi-application Basketball Grass



- Pile Height(mm): 10Density(stitches/sqm): 50500Material: PP

- Color: Army Green
 Application: cricket, basketball, tennis, volleyball, badminton, etc.



Multi-sports Synthetic Grass Tennis Artificial Turf

AG13-2



Pile Height(mm): 12 Density(stitches/sqm): 66000 Color: Olive Green Application: cricket, basketball, tennis, volleyball, badminton, etc.



Multi-function Artificial Grass for Sports

AG13-4



- Pile Height(mm): 10Density(stitches/sqm): 52500Material: PP

- Color: Green + White + Red
 Application: football, basketball, tennis, volleyball, badminton, etc.









LANDSCAPE TURF

Landscape artificial turf is suitable for being laid on outdoor areas of all places and is widely accepted by a growing number of users due to its low maintenance costs and good looking. Natural grass may lead to unsightly pathways because of wear or mud turf surface because of rain.

However, artificial grass is able to withstand the high activity of foot traffic, kids' play, and extreme weather conditions, and has good UV resistance and will not shade due to exposure to the sun and meet people's recreational demands throughout the year.









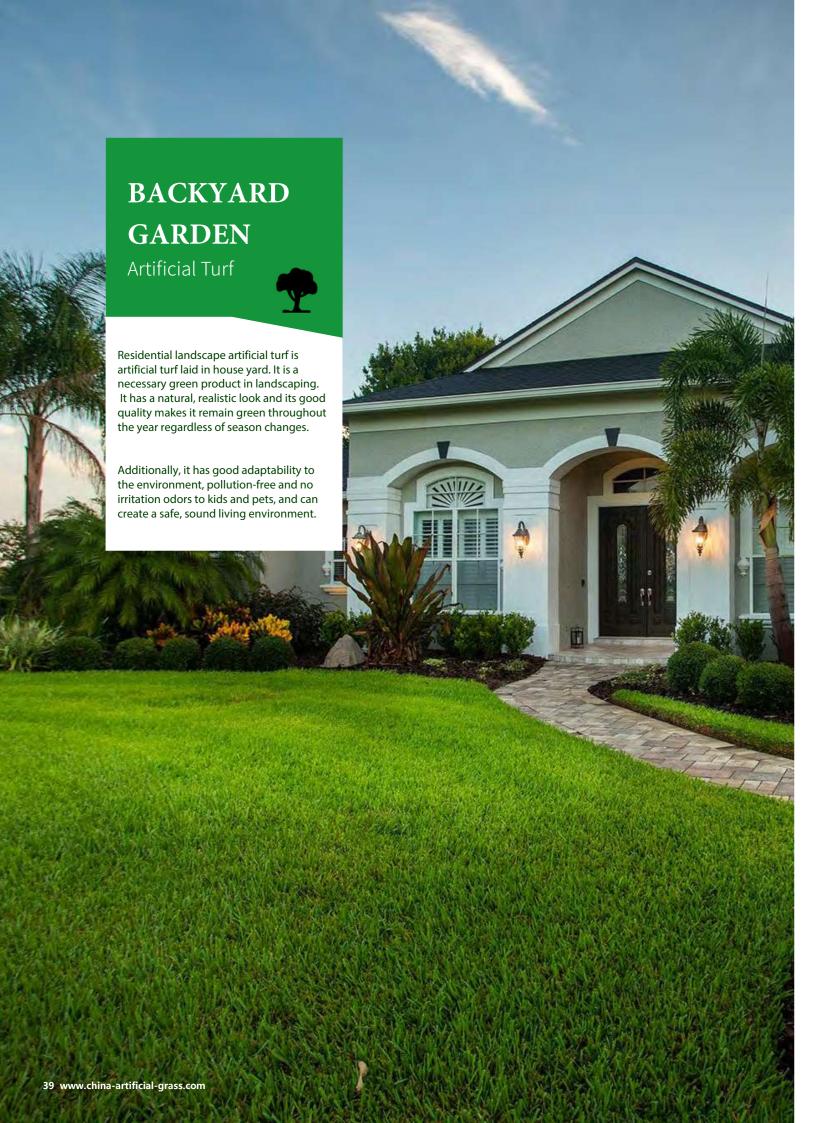


PET ARTIFICIAL TURF



PLAYGROUND ARTIFICIAL TURF

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- Pile Height(mm): 40Density(stitches/sqm): 29400Material: PP+PE
- Color: Light Green+Dark Green+White
- Soft and resilient





- Pile Height(mm): 30Density(stitches/sqm): 21000Material: PP+PE

- Color: Fruit Green+Emerald Green
 Highly similar to natural grass





- Pile Height(mm): 30Density(stitches/sqm): 25200Material: PP+PE
- Color: Light Green+Army Green
- Special design



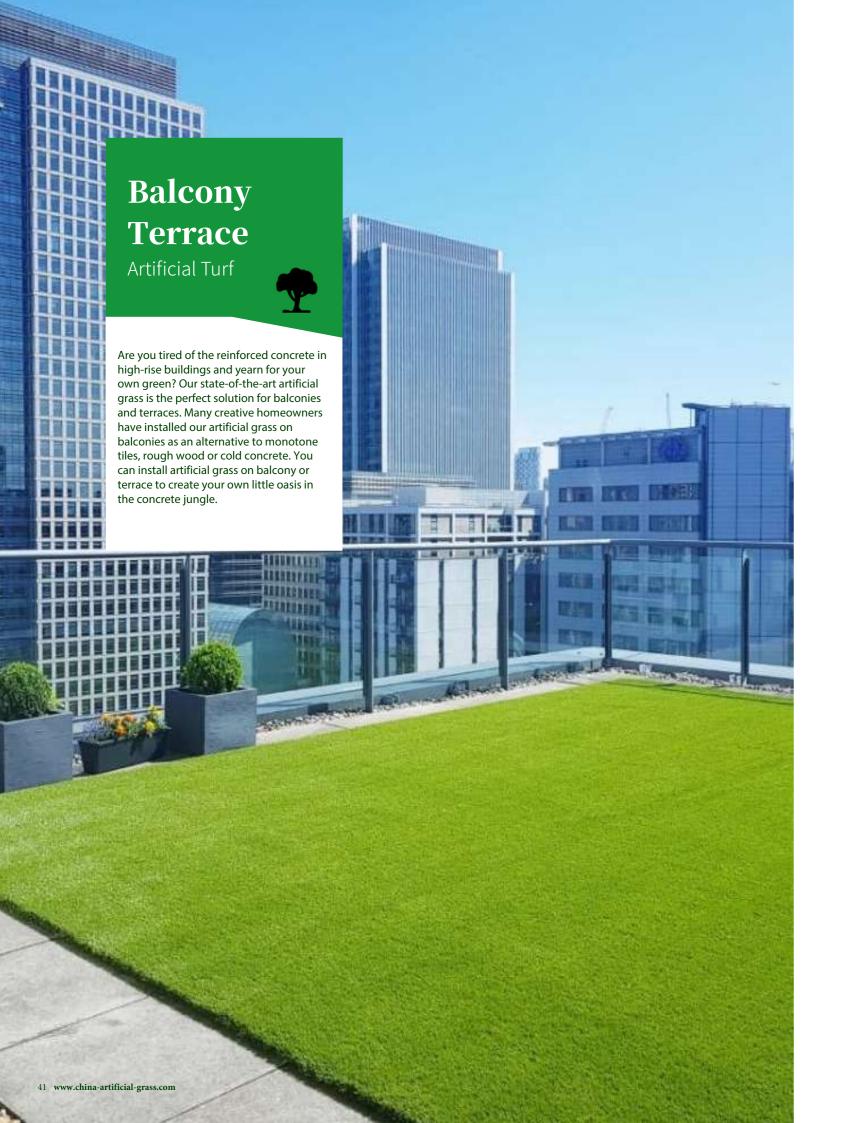


- Pile Height(mm): 40Density(stitches/sqm): 21000Material: PP+PE
- Color: Four Colors Mixed
- Closely imitate the natural lawn













- Pile Height(mm): 40Density(stitches/sqm): 21100Material: PP+PE
- Color: Green+Beige
- Dense and outstanding





- Pile Height(mm): 40Density(stitches/sqm): 17800Material: PP+PE
- Color: Two Colour Mixed
- Premium quality





- Pile Height(mm): 30
 Density(stitches/sqm): 29400
 Material: PP+PE
- Color: Countryside Green+Lemon Green +Olive Green+White
- Marvelous appearance





- Pile Height(mm): 25Density(stitches/sqm): 16800Material: PP+PE
- Color: Four Colors MixedFluffy feel



























Light weight

Ultra-soft

Portable

Skin-friendly

Suitable for DIY





allows real flowers and grass

bags, allowing you to enjoy the beauty and freshness of

nature with the convenience

Easy to move

100% recyclable

Breathable and strong

Our innovative product

to grow in artificial grass

and low maintenance of

artificial materials.





The YOYO Grass is a time. With its unique



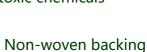


remarkable artificial grass mat that brings joy and excitement to your leisure features, it produces a range of cheerful sounds when you jump, dance, or laugh on it.

Transforming your indoor or outdoor space into a lush green haven is now easier than ever with self-adhesive artificial grass. This DIYfriendly product is simple to apply and requires no professional help.



No heavy metals or toxic chemicals



Self-adhesive design



Back to nature

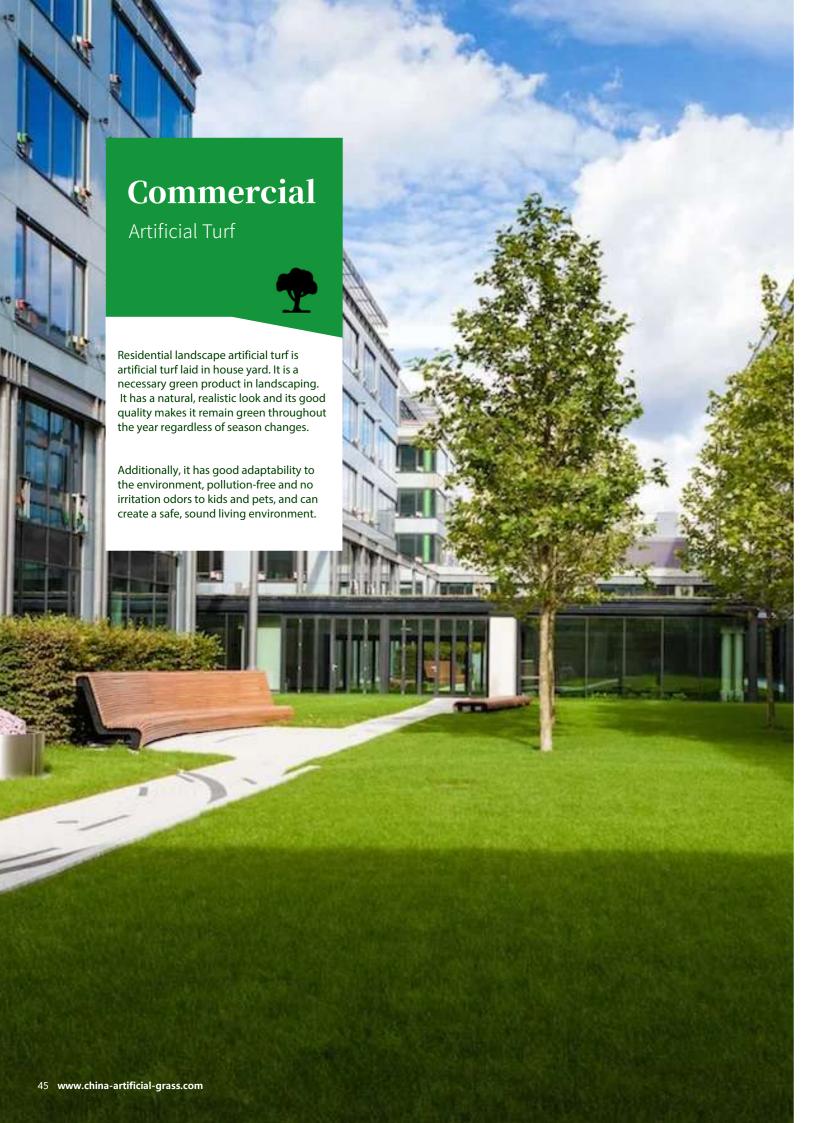


No need for weed



Wide usage









- Pile Height(mm): 30Density(stitches/sqm): 21000Material: PP+PE

- Color: Light Green+Army Green
 Enhanced experience of Look & Touch





- Pile Height(mm): 25Density(stitches/sqm): 16800Material: PP+PE
- Color: Three Colors Mixed
- High quality and cost effective





- Pile Height(mm): 30
 Density(stitches/sqm): 29400
 Material: PP+PE
 Color: Countryside Green +Lemon Green+White
- Ultra-Fluffy and dense



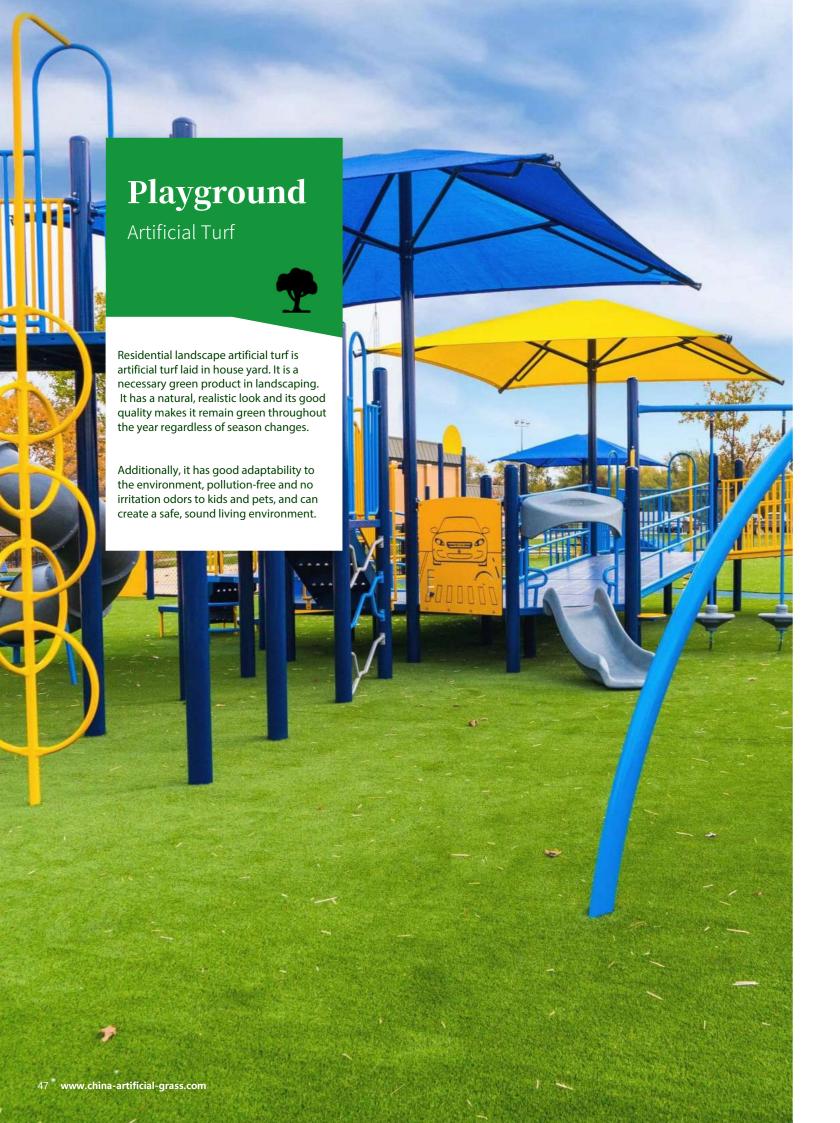


- Pile Height(mm): 27Density(stitches/sqm): 16800Material: PP+PE
- Color: Apple Green+Emerald Green
- Fluffy and realistic looking

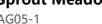














- Safety Guarantee
 Multiple Colors
 Top performance versatile turf
 Extreme UV stability and durability



Jolly Grass





- Safety GuaranteeMultiple Colors
- Simulate professional sports experience for children



Rolling Green Hills



- Safety GuaranteeUnique fibrillating structure
- Color choice
- High wear resistance





- Vivid colors and pattern
- Soft touch
- Safety & Health
- Childhood memories of adults as well





- Vibrant color matchingSoft touch

- Incorporate digital elementsChildren' s favorite playground









Requirements



Grass fiber structure

Elastic grass fiber shall be selected.

Grass fiber weight



Grass fiber structure



Pile height

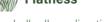
Enhanced elasticity and fiber density 10-20 mm



make the turf denser.



Flatness





The ball rolls undirectionally on artificial

Uniform infill, no excess pebbles are permitted to maximize the flatness of artificial turf to a large extent.

Product

4400-10000 DTEX



Golf Putting Mat



- Realistic golf course experience
- Long-lasting smoothness
- Suitable for both indoor and outdoor use



Putting Green Grass

AG06-2

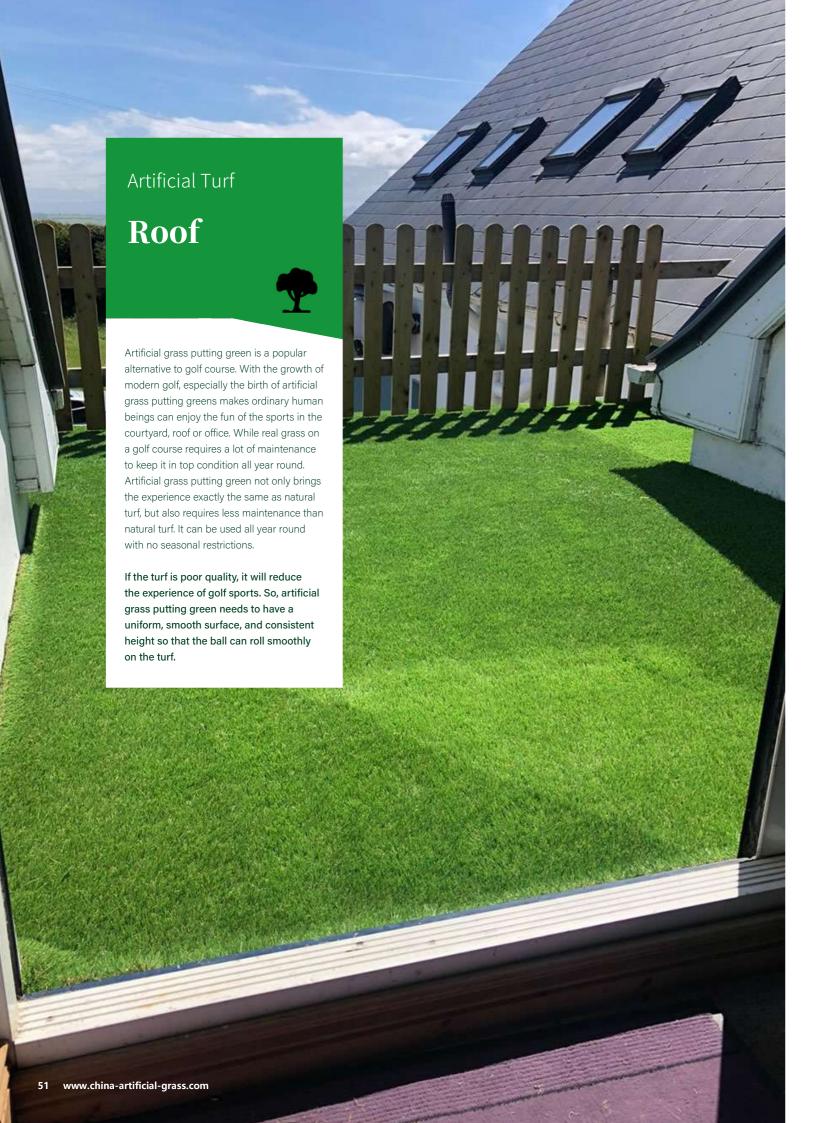


- Professional sports products
- Easy Installation
- Safety Guarantee









MAKE YOUR ROOFTOP STAND OUT WITH ROOF TURF

Enjoying natural aesthetics has become a popular trend in modern home life, and our roof grass is the perfect way to embrace this trend. Our roof turf is easy to install and requires little maintenance, making it a hassle-free way to create your very own oasis. Plus, with its natural look and feel, our roof grass will give your space a fresh, inviting ambiance that everyone will love.

Product



Roof Breeze



- Pile Height(mm): 27
- LDensity(stitches/sqm): 18900
- Material: PP+PE
- Color: Apple Green+Emerald Green
- Make your roof standing out



Roof Midsummer

AG07-2



- Pile Height(mm): 25
- Density(stitches/sqm): 17800
- Material: PP+PE
- Color: Army Green
- Extend the life span of your roof









Requirements



Non-toxic, anti-bacteria infills are used to prevent the accumulation of bacteria.

Soft PP and PE

Infill



Grass fiber structure

A combination of straight grass fibers and thatch increases the softness of the turf.



Backing

Good water permeability backing ensures pet urine completely drains out.



Pile height

Short grass fiber ensures users can clean solid wastes quickly.





- Preventing the generation of bacteria, mold
- Specially designed for pets







U-stem blade + Thatch

U-shape blade + Thatch

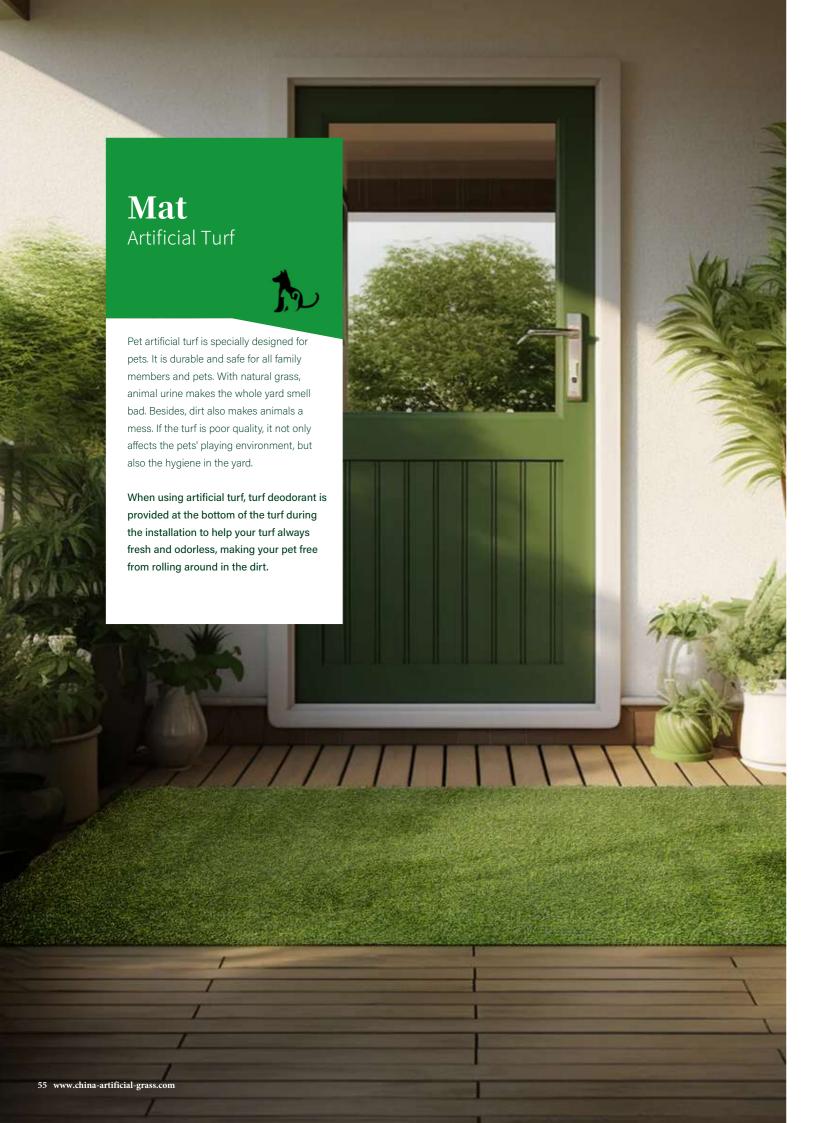
FUN AND COMFORTABLE ARTIFICIAL GRASS FOR PETS AND DOGS

Tired of muddy paws and endless mowing, fertilizing, watering jobs in your garden? Worried about digging holes and yellow stains from dog urine making your lawn look terrible? Our artificial grass for pets offers a perfect solution to all the problems and creates a fun, hygienic and comfortable recreational playground!

















Natural look



Portable





Easy to clean



Waterproof and anti-slip



Pet Mat

Artificial turf structure



Real grass-look and touch



Safe and antibacterial



Easy to clean



Different styles

















Anti-slippery for safe







Easy to clean



Indoor Mat

Artificial turf structure





Decoration Mat

Artificial turf structure



TECHNOLOGY

Chinee Artificial Grass technology includes artificial grass terminology & process, design plans, field construction and maintenance, aiming to provide necessary technical reference for our customers from the very beginning of artificial grass selection to final artificial grass installation. In this way, we provide our customers with one-stop artificial grass solutions and improve users' experience.

TERMINOLOGY

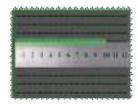


DTEX

The weight of artificial grass fiber in 10000 m.

Artificial grass DTEX includes 6300, 7400, 8000, 8800, 9500, 10000, 11000, etc.

The larger the DETX, the heavier the weight, the better the quality and higher wear-resistance.



Stitch rate

Let's take the stitch rate of artificial grass in 100 cm as an example. Measure the stitch rate of artificial grass in 10 cm as a, and the stitch rate in 100 cm is A=10×a.

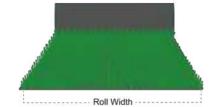


Gauge

The distance between two adjacent artificial grass yarns, expressed in inch.

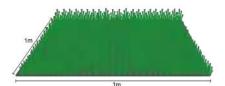
Gauge B=

100 mm/spaces b/25.4 mm



Roll Width

The unfolded artificial grass roll width. Generally, 11-man football field is 4 m in width, and 5-man football field is 2 m in width.



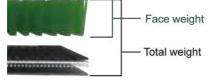
Density

Number of tufts per unit area, expressed in tufts/m².

Density=[1000/(B×25.4)]×A

For example:

A=10×a=10×17=170 B=100mm/b/25.4=100/10.5/25.4≈3/8" Density=[1000/(3/8×25.4)]×170≈17850/m²



Face Weight

The weight of artificial grass fiber per square yard, expressed in ounces. It refers to the weight of grass fiber only, excluding the backing and coating materials. It is one (but not the only) characteristic that impacts performance and durability. Generally, the higher the face weight, the longer and denser the artificial grass will be. It not only creates a lusher, more well–grown appe arance, but also offers a softer underfoot when you walk on it. So, it is seen as a key indicator of artificial grass quality based on density.



THATCH PRODUCTION PROCESS



Chinee Artificial Grass thatch has elasticity and looks similarly to natural grass. It generally works with monofilament fibers to play the role of support. Besides, it also increases the turf density, makes it look lusher and more realistic.

Thatch production process is divided into ATY and KDK production process. **Chinee Artificial Grass** use both ATY and KDK to produce artificial grass thatch to offer more options for customers and meet the demands of different applications.

KDK & ATY	KDK	ATY	
Process	Knit multiple monofilament yarn and then fix it by high temperature to make the crimps.	Texturize the monofilament yarn by the air pressure. The curly degree is subject to the nozzle valve and air pressure.	
Fullness and completeness	****	***	
Elasticity	****	***	
Tufting time	Not exceeding 3 weeks.	No time limit.	
Shape durability	6 years	3 years	
Application field	High-end sports fields and landscaping lawns	Common sports fields	

Compared with ATY, KDK greatly improves its performance and can adapt to high-end sports fields. KDK is generally adopted for **Chinee Artificial Grass** thatch production.

ARTIFICIAL GRASS PRODUCTION PROCESS

Artificial grass production process is a key link in artificial grass production. It not only affects the firmness of grass fiber and the adhesion of coating, but also concerns the lifespan of artificial grass.

Tufting

Tufting is the most common artificial grass production process. The principle of tufting machine is similar to a sewing machine. It tufts grass fibers into the backing through tufting needles, forming a U-shape tuft and making grass fiber arrangement uniform. Needle moving mode. It either moves laterally or along z-direction. When needles move along z-direction, it makes grass fibers distributed evenly and offers high grass fiber coating adhesion.







Weaving

Weaving artificial grass surface is a process that weaves the backing and grass fibers together to form a dense artificial grass surface. This artificial grass surface is highly stable and grass fibers has no fixed direction.



Needling

Multi-layer fibers are needled together to form grass fibers. Compared with other artificial grass, needle punched artificial grass surface offers highest porosity (If the material has high porosity, it indicates the material is not compact.), good wear-resistance and least sand content. So, it also requires a lower maintenance cost.



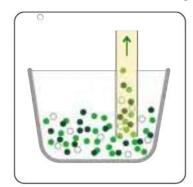


PRODUCTION FLOW

Stringent artificial grass production flow is the basis for producing high quality artificial grass. From raw material processing to final mechanical rolling, LRGrass always carries out production in strict accordance with relevant standards to ensure that we can provide best artificial grass for our customers.

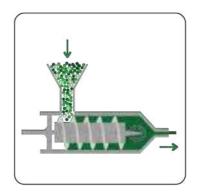
MAIN PRODUCTION PROCEDURES

1.Raw Material Processing



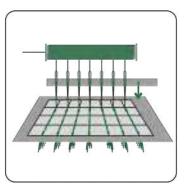
Mix the color masterbatch in a certain proportion and pump the color masterbatch to the extruder.

2.Grass Fiber Extrusion



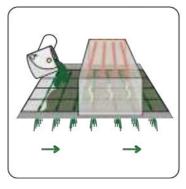
Extrude the color masterbatch into grass fibers and finalize the shape. Multiple times of extrusion may be required according to your needs.

3.Tufting



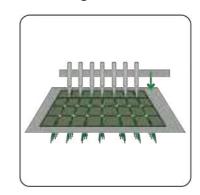
Tufting production process is used to tuft grass fibers from the bottom of the backing. And then perform manual inspection and replenish grass fibers.

4. Coating & Drying



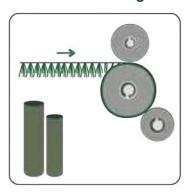
Apply the glue on the backing of artificial grass, flat and dry the glue to make the adhesion between grass fibers and backing firmer.

5.Punching



Equally spaced heat melt drainage holes enable the artificial grass to have good drainage effect during use.

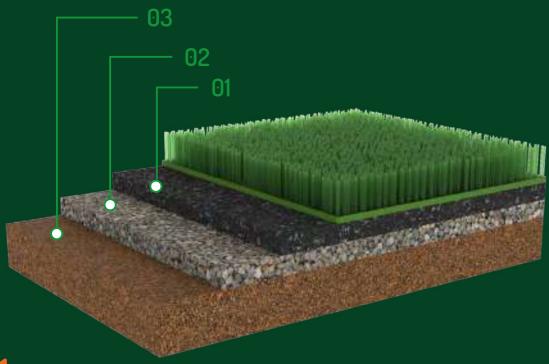
6.Mechanical Rolling



When the hole punching is completed, carry out final inspection and then roll up the artificial grass if everything is OK.

BASE LAYER DESIGN PLAN

Artificial grass base layer is the base paved before laying the artificial grass to ensure that artificial grass is fixed on a flat surface. The base layer is composed of 3 sub base layers. The first layer is existing soil, the second layer is made of hydrophobic gravels and the third layer can be asphalt base, gravel base or cement base, which kind of base is used depends on local climate and your budget.



01

Optional Underlay

Asphalt

Ordinary asphalt

It is a common choice for asphalt base, and the price is slightly cheaper.

Hydrophobic asphalt.

It features high cost, complex construction and less used. It has good strength and ductility, and is an ideal choice for base layer, especially suitable for regions with a cold climate and a large temperature difference, but the cost is high.

Cement

Good strength, economic and practical, suitable for regions with asmall temperature difference, but poor ductility

Cement stone powder

Short construction period, low cost, good drainage performance, but poor weather resistance, easy to oxidize and cause a uneven ground base.

02.

Prepared Sub Base

Hydrophobic gravel.

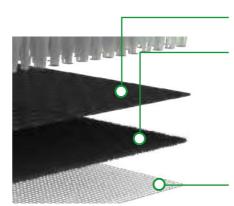
The lowest cost, good drainage performance, but poor rigidity and stability, easy to loosen the substrate after long time use, thus leading to uneven base.

03.

Existing Soil

BACKING OPTIONS

Artificial grass backing is generally composed of 3 layers and is the top layer where artificial grass fibers are sewn on. It features small shrinkage, high tensile strength, no deformation, anti-UV, good anti-aging and smooth cloth surface, which ensures the service life of artificial grass.



PP: It can meet the basic requirements of artificial grass, low price.

Optional Layer

PP woven cloth.

It can meet the basic requirements of artificial grass, low price.

Non-woven fabric.

Moisture-proof, breathable, soft, easy to decompose, non-irritating, recyclable.

PET cloth.

Corrosion resistant and durable, good adhesion to glue and grass fibers.

Grid Cloth

It can meet the basic requirements of artificial grass, low price.

TRADITIONAL COATING VS NEW COATING

Artificial grass coating is a material that holds grass fibers and backing together as a whole. Currently, SBR coating and PU coating are commonly used, PU coating is a little expensive but more effective. In addition, LRGrass has developed new ecofriendly, recyclable coating and recyclable non-adhesive PRT coating.

Coating Types	Traditional Coatings		New Coatings	
	★★ SBR Coating	★★★ PU Coating	★★★ Recyclable Non-Adhesive PRT Coating	★★★★ Eco-Friendly, Recyclable Coating
The Bonding Method Between Grass Fibers and Backing	Gluing	Gluing	Hot melting	Hot melting
Adhesive or Non-Adhesive	SBR coating	PU coating	Non-adhesive	Melting coating
Water Permeability	Perforated hole water permeability – general	Perforated water permeability — general	Direct water permeability – great	Strong turflock
Turflock Capacity	Grass fibers are prone to fall off in moisture conditions.	General	Strong turflock	Strong turflock
Eco-Friendly Performance	Unrecyclable	Unrecyclable	100% recyclable	100% recyclable
Softness	Little hard	Little hard	Soft	Very soft
Thermal Stability	Stable temperature, no expansion	Stable temperature, no expansion	Stable temperature, no expansion	Stable temperature, no expansion
Weight	A little heavy	A little heavy	Lighter	Lightest



ARTIFICIAL GRASS

DRAINAGE SYSTEMS

Our artificial grass, no matter traditional coating or new recyclable coating, has good drainage effect. Excess water can be drained out smoothly. It ensures the dryness of the artificial grass surface and keeps artificial grass in good conditions.

However, if the drainage facilities are not perfect, it will cause water to accumulate in the base layer and cannot be drained out smoothly, leading to the artificial grass base caking and uneven, the whole grass wet and other problems. In addition, it will greatly reduce the service life and field performance of artificial turf, and high maintenance costs in the late stage.

It is vital to make out a proper and efficient artificial grass drainage system before laying. A proper drainage system will keep the artificial grass surface hygienic as well as safe for use, and to a certain extent, reduce maintenance costs.

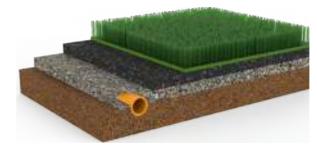
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DRAINAGE SYSTEM RECOMMENDATIONS

Based on previous experience, there are two common drainage systems. You can choose the appropriate drainage system according to different actual conditions to achieve the best drainage effect.

Finger System



Suitable for

It is suitable for artificial grass laid on flat areas.

Base construction

It is composed of 3 layers, artificial grass carpet layer, filler layer and ground cover. Once the water drains through the carpeting and filler layer, it goes into the ground cover added with gravels or drain pipes to facilitate the drainage.

Precautions

Base materials

Materials for base construction should be inspected before use.

Base appearance

The surface shall be uniform, solid and flawless; the seam shall be smooth without stagnant water.

Base drainage

120 minutes after raining, water not greater than 4 mm is permitted.

Thickness tolerance

Allowable deviation of thickness is ±10%.

Channel Drainage

Suitable for

It is suitable for artificial grass laid on graded or sloped areas.

Base construction

Before installing artificial grass, the ground is smoothed out to remove valleys and dips that may accumulate water. And then create small, intricate channels that will drain water towards the turf's lowest corner. The water then flows towards drainage ditches, down a drain or straight into the street.



Precautions

Base materials

Materials for base construction should be inspected before use.

Base appearance

The surface shall be uniform, solid and flawless; the seam shall be smooth without stagnant water.

Base drainage

120 minutes after raining, water not greater than 4 mm is permitted.

Drainage gradient

When the base is finished, re-test floor level by 10×10 m square grid and calculate the drainage gradient. The gradient should be not greater than 0.7% and the deviation shall be less than 1.5%.

Qualified ratio

The qualified ratio for evenness, gradient and level shall reach 85% at least.

ARTIFICIAL GRASS INSTALLATION

Get proper tools well prepared to ensure the artificial grass installation goes smoothly. It not only reduces maintenance costs, but also extends the service life of artificial grass.

Tools Required

Easy to find tools

- Hammer, rake, shovel and tape measure
- Utility knife (throw in some spare blades too)
- Artificial grass joining tape (can be found at any major hardware store)

Special tools

- Power blowerCompactor
- Excavator (if you're going to install the artificial grass to a larger area)

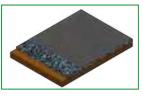
INSTALLATION PROCESS

1 Remove the existing turf



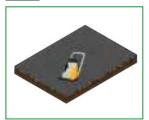
Remove any rocks or sprinklers that may affect the artificial grass installation. Dig to a depth of 70 mm to 80 mm. This is going to be the bed where you'll lay out the artificial turf.

Lay the base layer



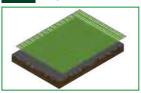
Lay the soil on the existing ground and then pave a layer of hydrophobic gravels and then lay a layer of asphalt or cement.

3 Compact the base layer



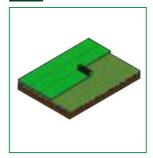
When the base layer laying is finished, compact the base with a compactor to create a perfect base for artificial grass installation. The perfect depth of a sub-base for artificial grass is around 15 mm to 20 mm.

4 Lay the shock pad



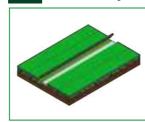
Lay the shock pad to provide users with good elasticity and cushioning effect. It also helps to extend the lifespan of artificial grass.

5 Put the artificial turf in place



Make sure always lay artificial grass pieces in the same direction. It is recommended that artificial turf is put in place for at least 3 hours to prevent artificial turf from wrinkling.

6 Install the joining tape



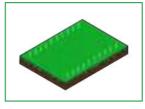
Put the turf tape at the seams between artificial grass pieces to make sure the artificial grass is connected as a whole and firmly secured.

7 Trim the artificial turf edges



Use a sharp utility knife to cut and trim your artificial turf to ensure the turf edges are cut neatly and meet your desired shape.

8 Secure the artificial turfedges



Place a nail every 25 cm to 30 cm, secure the artificial turf and make sure your artificial turf stays in place.

9 Lay the infill, brush artificial turf



Lay the infill on artificial turf and use a rake to gently spread the sand throughout the artificial turf. If the artificial turf does not need infill, brush the artificial turf to keep grass fibers upright.

ARTIFICIAL GRASS MAINTENANCE

After long term use, the performance and safety factor of artificial grass may be reduced. Due to the abrasive nature of artificial infill substances, all grass fibers disintegrate over time, so professional artificial grass maintenance is required.

Proper maintenance can extend the lifespan of your artificial grass by more than 30% while ensuring safe and consistent use. Additionally, your costs will significantly reduced by carrying out annual and preventative maintenance practices.

Basic Requirements

- Keep the field clean and control the traffic flow.
- Reduce cleaning frequency and clean it at high temperatures.
- Set enough trash bins.
- Repair minor damage timely

Cleaning

Watery stains

For juice, milk, ice cream, blood stains and other "watery" stains, first scrub with suds, then rinse thoroughly with water where there is soap; blot with a absorbent towel if necessary.

Chewing gum

Spray it into small pieces with an air gun and then remove the residue.

Fungus or mold

Pour 1% hydrogen peroxide into water, wipe the fungus or mold and then soak with water thoroughly.

Maintenance

. Stubborn stains & oil stains

- For shoe polish, sunscreen, ballpoint pen oil, wipe with a sponge dipped in perchlorethylene and blot with a absorbent towel.
- For paraffin, tar and asphalt, wipe with force or wipe with a sponge dipped in perchloroethylene.
- For nail polish, wipe with acetone.
- For paint and coating, wipe with turpentine or paint remover, and clean with detergent and water. Then wash the detergent with cold water and scrub with force, wipe with a sponge dipped in perchloroethylene.

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Check if the seam joints are loose and if the turf bottom is damaged, teared or burnt carefully.

Major repair shall inform of the installation company timely.

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Heavy rain washing and sweeping will cause a small amount of infill losing. Areas that need to be refilled can be sprayed with some silica sand, crumb rubber and completely refill into the turf.

Prohibitions

- No smoking or fireworks is allowed on the turf.
- No 7 mm spiked shoes is allowed to run on the turf.
- No cars, motorcycles and other vehicles are allowed to drive on the turf.
- No chemical cleaners, herbicides or pesticides are allowed.
- No heavy objects is allowed to be put on the turf for a long time.
- No intentionally set off boundary is allowed on the turf.
- No shot put, javelin, discus or other falling sports is allowed on the turf.
- No powerful jet guns exceeding 300 PSI is allowed, as it may damage the turf.

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