

## Skating & Hockey Treadmills

This is a Back Up From Our Blog Prior to The Web Site being Hacked.  
Send any questions to [admin@skatingtreadmills.ca](mailto:admin@skatingtreadmills.ca). We will respond promptly.

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### Synthetic Ice

#### 60 Responses to “Synthetic Ice”

[Newer Comments »](#)

1.  [Peter Schmidt](#) says:

[February 9, 2009 at 12:58 pm \(Edit\)](#)

Can you tell me which synthetic ice is best? I am confused with the different types out there and not sure which to buy. Do you have knowledge for this? It wasn't clear to me.

2.  [admin](#) says:

[February 10, 2009 at 12:43 pm \(Edit\)](#)

There are a number of different technologies available out there. Some are a single layer, straight polyethylene or chemically engineered plastic, and yet others are multi-layered pre-engineered solutions with a plastic surface coating. What you need to ensure is that the activity you are doing will be supported by the skating surface you buy.

Polyethylene's typically are dryer and need a coating from time-to-time to help endure the heavy usage. Other specialty plastics have imbedded oils that release when the heat of the blade makes contact with the surface, reducing the amount of friction and thereby the amount of wear that is experienced.

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3.  [Debbi](#) says:

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[February 17, 2009 at 9:00 am](#) (Edit)

Can you figure skate on fake ice? Or will the toe pics damage it?

4.  *admin* says:

[February 18, 2009 at 11:43 am](#) (Edit)

From what we can gather, polyethylene surfaces scar faster and pit easier than the more compact and dense engineered surfaces that release lubricants from within when the blades and pics make contact.

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5.  *Frank Lui* says:

[February 21, 2009 at 6:01 pm](#) (Edit)

Do you need to freeze this ice?

6.  *admin* says:

[February 22, 2009 at 7:23 am](#) (Edit)

Synthetic [or fake] ice is just that - fake.

Generally this is used in climates that cannot properly sustain an outdoor skating rink without a lot of maintenance. It is also use indoors when the costs of maintaining artificial ice, or man made ice like in a skating arena [and not to be confused with "real" ice - like on a lake], are too high.

Synthetic ice surfaces do not require special chemicals, an ice grooming machine, specialized personnel, tons of water, won't waste energy etc., to name just a few benefits. It also has the benefit of being portable, so it can be assembled and then packed up and stored until needed again.

In fact, a power sprayer or a mop, and a broom, are what generally is used to keep the surface clean for smooth skating.

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7.  *JT* says:

[March 19, 2009 at 1:49 am](#) ([Edit](#))

Does expansion of these synthetic skating surfaces matter, or do they expand at all? I am concerned if I put boards around them that they might push into them with temperature changes.

8.  *admin* says:

[March 21, 2009 at 4:44 pm](#) ([Edit](#))

Good question JT,

Pretty well every product has what is called a co-efficient of expansion factor [COE]. The lower the COE, the less expansion that happens, therefore the less concern you have with impending contact with the surrounding surfaces. Find out from the manufacturer what their COE is and how they deal with it along the edges.

A concern of equal importance though, is absorption. Make sure that the installation of your surface meets with manufacturers spec. By that we mean if you have an engineered surface assembly with perhaps wood in between the exterior layers, it may not be a suitable for an external application where rain may penetrate through sheet edges and cause “rippling” of adjacent sheets. This could become a liability if someone were to catch that edge while skating.

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9.  *JT* says:

[March 23, 2009 at 5:13 pm](#) ([Edit](#))

What do you recommend for glass around personal skating rinks. I do not want pucks all over the yard, or hitting my windows.

10.  *admin* says:

[March 24, 2009 at 3:07 pm](#) ([Edit](#))

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The simplest approach would be to put a “golf range net” concept between the rink and the area of concern. This is probably least expensive.

Failing that approach, a lightweight .220 shatterproof Plexiglas works wonders, but for real strength [and more cost of course] use a polycarbonate such as Lexan that won't rattle and vibrate as much when hit by flying pucks.

If you have hollow framing to support you choice of glass, you can also attached a netting over the entire rink at glass height by inserting guide poles into the glass frames and “tepee” it all with end poles connected by a support cable.

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11.  *Randy* says:

[April 11, 2009 at 11:33 am](#) ([Edit](#))

What is the approx. cost of the fake ice?  
Also, does anyone know the cost of the skating treadmills?

12.  *admin* says:

[April 11, 2009 at 3:44 pm](#) ([Edit](#))

There are several manufacturers of synthetic ice. More than price, your primary concern is the intended use - indoors or out, public skating or hockey/figure skating training, and whether you require a full rink or just the surface.

FakeIce, SuperGlide360, KwikRink, EZ Glide, Viking Ice and are some better known surface distributors. The general price, overall, would be from \$10 per square foot to over \$20. Be sure to contact each manufacturer to get an understanding of their value-add to the relationship.

Some things to consider:

1. Co-efficient of expansion: important if you are building a large sheet
  2. Surface treatment: important if you want a low maintenance product
  3. Length of surface life under YOUR intended use
  4. Service and support program
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13.  *sb* says:

[May 9, 2009 at 2:06 pm](#) [\(Edit\)](#)

I would like to open ice skating club. Do you think that synthetic ice would be fine for this? Do you have any suggestions please?

14.  *admin* says:

[May 11, 2009 at 9:47 am](#) [\(Edit\)](#)

With synthetic ice, opening a skating club does not limit you to location. However your demographics will suggest a general area to open your venue. Ensure you have done proper research in understanding how far people will travel to skate, the type of skaters you have access to [hockey, speed, figure] and of course, how many might visit on an ongoing basis.

On a professional level, synthetic ice is used as a training tool to offer resistance in skating and in strengthening the core, but is not sanctioned for use in professional events. On a recreational level, synthetic ice is perfectly fine to use as long as every one understands the liability involved is no different than real ice [i.e. wearing of helmets is a must].

From an environmental perspective, synthetic ice is used as it is considered a green alternative to the required water, refrigeration systems and chemicals needed to sustain artificial ice.

Economically, synthetic ice rinks generally have an ROI of less than 2 years, if the business plan is sound and market analysis is heeded.

However, all that being said, the true success of any synthetic rink lies in happy skaters, and for this you will need to ensure ease of skateability and low mess cleanup, and low maintenance.

If you install outside ensure you know the coefficient of expansion factor. The higher it is the more a rink expands and contracts during temperature swings of 20 degrees or more. This can be an issue around board edges. Some products require a sub-surface to allow for "sliding."

Synthetic surfaces have a resistance factor and the material with the highest molecular chain structure is the densest – making it the easiest to skate on, and the best for figure skate pics. Even here there is an issue in identifying which is best.

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So the next consideration is the surface treatment required to make the synthetic “slippery.” Those requiring no treatment with a resistance of 10% or less are best. Next are those requiring Glycerin or Silicone sprays to be applied to the surface with a resistance of 15-20%, and finally those with resistance of over 20%.

However, sprays are short lived and require constant application and can be costly over time. These generally scrape off and adhere to clothes, causing quite the annoyance to skaters. The question of potential health risks associated with inhaling such airborne particles needs to be considered.

Lastly, consider the value of a complete installation. Many suppliers provide the surface, but little else. Buying a turn-key rink can have advantages for the installation process and perhaps warranty support.

For the main synthetic ice brands check the Synthetic Ice Spec Analysis on the Products page.

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15.  *Rob* says:

[May 28, 2009 at 10:11 am](#) [\(Edit\)](#)

I have heard that shavings from Glycerin or Silicone enhancers used on synthetic may be harmful if inhaled. My boys skate on EZ-glide at the facility in town, and when they get off the ice I have to take all their clothes off before they get into the car. They are covered ankle to shoulder with shavings. This got me to thinking about the health risks. Can you help at all as I cannot find anything on this? Thank you for your help.

16.  *admin* says:

[June 1, 2009 at 10:05 am](#) [\(Edit\)](#)

When asked, physicians didn’t have a real answer. Some were amused, thinking about silicon implants, others mentioned the general use of Glycerin on skin. Yet when we Goggled “breathing silicon dust” and “breathing Glycerin dust” we were alarmed at what we did read. We will let you make the final decision as to whether you feel there is a potential for harm or not.

If you read the label on the container that your training facility uses to enhance their surfaces you should be able to satisfy your concerns. Many years ago

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smoking was considered medicinal; and Lysol brand cleaning solution was recommended as a personal hygiene product. So go with your gut instinct. None of these products are made for consumption, so perhaps the real question might be at what level these products pose a negative health risk. If possible, select a facility that does not use glide enhancers on their skating pads or skating treadmills.

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17.  *Louis* says:

[August 11, 2009 at 12:05 pm \(Edit\)](#)

I am planning to use some synthetic ice that has been in storage for an event and I have no idea what kind of silicone spray to use. Is this something you can get at Home Depot or that you have to order specifically?

18.  *admin* says:

[August 12, 2009 at 8:58 am \(Edit\)](#)

There are various types of synthetic ice available in the market today.

Since your plastic has been in storage, I would presume that it is not FakeIce as this latest innovation only hit the market recently. This product has a tongue on two adjacent sides and a groove on the other two sides. If this is your product, there is no need for enhancers as it is the only product on the market that is chemically engineered with imbedded oil molecules and comes in a variety of colours.

Viking Ice would have an engineered wood sandwiched in between thin layers of plastic. Contact them directly for enhancer requirements, if any.

A dove tail design on the sheet edge generally denotes it being EZ-Glide, and they will be able to provide a retail location for their molasses which you apply to the skate blade or the surface directly. It originally has a pebbly feel and comes in various colours.

If the plastic has a groove into which a spline needs to be inserted, or a tongue and groove technology then more than likely is a regular ultra high molecular weight polyethylene [UHMW, with no imbedded oils] that has been designed for use by skaters, in which case either a Silicon or Glycerin product can be used. Check

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local retailers or call a SuperGlide360 distributor and they may be able to help you.

If the sheets have a straight edge all round, it could be any type of polyethylene and could cause concern at joint edges. A skater may catch an uneven area and be injured.

As a note of caution, if you are using this for a public event you should insist on the use of helmets and have participants sign a liability waiver to protect the venue owners.

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19.  *Manny* says:

[September 26, 2009 at 4:49 am](#) [\(Edit\)](#)

Can you tell me anything about the 3s skates I see on line? They seem very unique.

20.  *admin* says:

[September 27, 2009 at 6:23 am](#) [\(Edit\)](#)

With respect to the “3s” skates, they are round metal blades [not wheels as you mentioned].

Unique, yes. Practical – not sure.

I noticed on their video that they do not show anyone “stopping.” And there is probably a very good reason for that.

When you stop, the “blade” cannot continue to move [or in this case roll]. So stopping on these would perhaps be quite difficult. The reason for their unique design is probably due to general complaints about synthetic surfaces that use glide enhancers - you can't move efficiently with all the resultant “dried coating shavings” caused by regular skates stopping on those types of surfaces.

The 3s skates round blades make less contact with the synthetic surface, so it will be easier for you to move, but probably much tougher to stop. In our opinion, without having actually used this new technology, the best experiences would be with normal skates on a good synthetic.

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21.  *Holly* says:

[October 1, 2009 at 4:10 am](#) ([Edit](#))

Do you have any ideas about how to set up a small rental rink? How would you charge skaters?

22.  *admin* says:

[October 2, 2009 at 9:30 am](#) ([Edit](#))

Give the people what they want and they will come back with their friends. In other words, ensure you have the appropriate ice that allows for the best glide, and one that is the easiest to maintain.

I would charge one fee for unlimited daily skating. I believe that once people are tired and sweaty, they tend to leave to get a drink or go home to shower. If they come back, great! If you get crazy busy and can't fit more people on the ice, increase the price a bit to thin down the crowd. Lockers are a requirement for sure! [maybe charge \$1 for rental]. Skate sharpening for sure! [perhaps \$3 per sharpening] and also skate rentals. A pop machine and a hot dog stand for refreshments – all cash money, all good!

23.  *Bill C* says:

[October 25, 2009 at 6:28 pm](#) ([Edit](#))

Can a cutting board sheet HDPE material with a pebble finish be used for synthetic ice?

24.  *admin* says:

[October 26, 2009 at 9:23 am](#) ([Edit](#))

High Density Polyethylene [HDPE] has been used as “synthetic ice” for many years. While these bumps that you describe allow for less friction initially, they

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are quickly worn by frequent stopping. It is at this point that you are forced in making a decision. Do you now accept the higher coefficient of friction [COF] or do you use an enhancer to cause easier skating. Both have their drawbacks.

The higher COF will make it more difficult to skate on. Many say that anything over 20% is no longer fun and requires too much effort. If the surface area is small, it might actually be too difficult to gain enough inertia to sustain movement.

If you use a glide enhancer such as Silicone or Glycerin, you will have to deal with the mess they cause as skaters shave off the dry layer that allows for momentary glide improvement. Blades get hot on any synthetic and these shaving can pack inside the blades arc, as well as slow skaters down as they skate over any unswept particles – both increase friction, slowing skaters down. The other consideration is that enhancers actually seal in the dirt if the plastic is not properly cleaned prior to its use. If this happens you may be sealing in dust and particles in the surface scratches, eventually leading to skating on what amounts to sand paper.

As a side note, the health risks of using enhancers should be assessed in environments where sprays and shavings may enter the respiratory system.

Smooth Ultra High Molecular Weight Polyethylene's [UHMWPE] products are better. The best UHMWPE's have lubricants engineered into them allowing for the lowest COF possible. When comparing these types of products, the one with the highest weight per square foot is the best as it will have the highest molecular chain count, making it the hardest and most durable. Remember to compare the same thicknesses as you do this. These products should never require/suggest enhancers. They will allow for a maintenance free, cleaner environment and the best skate possible. These oil imbedded UHMWPE's are also the most expensive due to their engineering formula.

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25.  *Loosing Clients* says:

[November 23, 2009 at 3:29 am \(Edit\)](#)

I have an idea for a rink but am curious as to your thoughts about getting customers to keep coming back. Do you have any ideas?

26.  *admin* says:

[November 26, 2009 at 10:43 am \(Edit\)](#)

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There are many ways. Make it fun, keep it clean, have refreshments and lockers, and skate [with helmet] rentals. Possible create your own 3-on-3 House League circuit. At certain times of the week, in the evenings, let teams rent the ice for league play. Charge teams maybe \$150 per hour for rink rental. Each 3on-3 team might have 10 players, 9 skaters and one goalie. Or individual drop-ins maybe pay \$7.50 each for the hour. You could have 8 teams in a division; maybe 2 divisions. Now you're talking revenue, fun and return business!!! You can also do public skating around league hours. You need ongoing activities. I'm not sure that you can just rely on tourists or the walk-in crowd, but they also help.

But you can do the above for kids on a smaller surface, maybe 30'x40'. For adults or "beer leagues" you will need a larger rink, perhaps 60'x100'.

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27.  *Sergie T.* says:

[December 14, 2009 at 1:06 am](#) [\(Edit\)](#)

I get confused when people mention synthetic plastic. Often they refer to a LDPE or something like that. Do you have any information that I can look at to help me educate myself on the science of these plastics?

28.  *admin* says:

[December 17, 2009 at 7:29 am](#) [\(Edit\)](#)

You are not alone.

There is a lot of info on polyethylene's, but some are for strands, bags, rods etc. You need info on sheets. Try this link. It is the best we have found <http://www.pslc.ws/mactest/pe.htm>. The molecular chain is important for durability, the more the better. For example, FakeIce is the highest in the industry with a molecular chain of around 5-6 million.

The weight of sheets of EQUAL size and thickness will also tell you a lot. The heaviest is the densest - equals the toughest.

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29.  *Charlie M* says:

[January 6, 2010 at 3:45 pm](#) ([Edit](#))

It appears that an indoor synthetic skating rink is not a problem for any synthetic plastic company to supply. But an outdoor synthetic ice rink is a quite troublesome thing especially if you want to make it a permanent outdoor rink. Normally, most people just make temporary outdoor skating rinks.

I know many manufacturers say it is not a problem, but normal plastic is affected after long exposure to sunlight, especially at high temperatures like 35-40 degrees Celsius.

My question is will synthetic ice bend, or change colour from white to yellow, or be affected in any other manner if installed permanently outdoors? I want to install a commercial outdoor rink and would like to use it long-term - for at least 5 years. Sorry for the long questions. What are your thoughts?

30.  *admin* says:

[January 7, 2010 at 4:50 pm](#) ([Edit](#))

First off, all synthetic plastics expand and contract [EC] in temperature swings of more than 20 degrees, sometimes even 10 degrees; and some EC more than others. Make sure the manufacturer provides adequate detail to the installer who builds the rink boards so he leaves enough room for this to happen. Generally they need to raise the boards over the plastic so you don't have a gap in the synthetic when it contracts, nor have an issue when the synthetic expands so it doesn't hit the boards and buckles. Probably the best option is to work with a synthetic manufacturer who also provides the boards as they will be best educated on how the two items work together, and are probably able to offer a better warranty as well.

Mostly all synthetic plastics will not bend when exposed to extreme heat if properly installed on a flat surface. As for discoloration, most will not discolour either. However the problem comes when you apply the glide enhancers that most plastics require to keep them slippery. Lubricants like Silicone and Glycerin will act as sealers, and continuous use will be like applying a wax film and it creates a barrier which gets dirty as well as discolours under the sun's exposure. The only solution in this case is to use an Ultra High Molecular Weight polyethylene [UHMHPE] that requires no sprays. Some may falsely claim they require no sprays, so the best way to really identify the truth is to ask how much their glide

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enhancer costs, without first asking if one is needed. The best plastic is a UHMW with oils engineered into it. In a tie, the best is the one that weighs the most, as its molecular chain will be the densest making it the most durable as well.

For commercial use such as public skating, and even hockey, all plastics are fairly even on durability for equal thicknesses. Five years seems very feasible as most manufacturers suggest their products are good for 10 years and more.

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31.  *Kate* says:

[January 11, 2010 at 12:54 pm \(Edit\)](#)

Is it okay for a synthetic skating surface to be covered with a thin layer of ice when it is used outdoors in the winter? Is this safe?

32.  *admin* says:

[January 11, 2010 at 1:36 pm \(Edit\)](#)

This question really has 2 answers.

Depending on the type, and quality, of the synthetic surface, here are a couple of determining factors, but they all surround the general porosity of the skating surface.

Most LDP [low density], HDP [high density] and UHMW [ultra high molecular weight] polyethylene's have a molecular make up that allows for some level of water absorption. When this water freezes it "connects" to the synthetic to create surface ice. With a thick layer of such ice, this presumably poses no problems as when the ice cracks as it would not leave the synthetic exposed. However, where thin layers of ice are haphazardly "fastened" and patches of synthetic are exposed, it may make for irregular skating resulting in unnecessary risk to ankle fractures if a skater stutters between varying surfaces, or stops diagonal to a transition, possibly "catching a rut."

If you use a UMHM synthetic that has oils, or chemicals engineered into it so that it never requires glide enhancers, then the possibility of water absorbing in to it, and resultant ice sticking to it, are greatly reduced, if not eliminated. Its imbedded oils repel water - hence the reason for lack of glide enhancers during "dry" use. Ice and snow clean up on this type of synthetic is very easy.

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In either case, it is always recommended that ice be removed to make for the smoothest and most consistent skating surface possible.

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33.  *Romance* says:

[January 23, 2010 at 4:32 pm \(Edit\)](#)

There are lots of synthetic ice manufacturers in the current market. Who should I buy from because I would like to open a figure skating training center? I found out only Xtraice patents their product in the market and other companies do not do so. Unfortunately, theirs is not a UHMWPE. Do you have any recommendations?

34.  *admin* says:

[January 27, 2010 at 9:13 am \(Edit\)](#)

For figure skaters you require a UHMWPE due to the toe pics on the skates; the harder the surface, yet with enough grab to hold the skate, the better. Always remember that synthetic is not ice. A figure skater will benefit from core and leg strengthening. To practice for competitions, natural or man-made ice is always preferred.

Some distributors of synthetic plastic do have patents, but this does not ensure proper technology for the intended use. Every product is in fact patented, but some re-distributors put their own brand name on someone else's plastic to protect the customer from going direct to another competing reseller or the manufacturer directly - so, often, patents can hide that fact also.

Patents can be for many things such as chemical engineering, connectivity and so on. In this case, a patent for synthetic plastic is not for the "ability to use the product as a skating surface."

This is all to say that once you line up all UHMWPE products, choose the densest of the bunch which can be determined by their molecular count [in the millions], then choose one with sufficient chemical [oil] engineering so that you never require glide enhancers to effectively skate on the surface. No one is diligent in over spraying, and often it becomes a liability, and the shavings that most spays generate are a nuisance in their own right. More on these points can be found on this blog.

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35.  *Louis* says:

[January 30, 2010 at 1:30 pm \(Edit\)](#)

EZ-Glide contends that they only use a food based product for their enhancer liquid. So is it safe to say that there can't be any health hazard associated with it? They also sell what they call a Magna Mat and claim that through the static created by its use, the glide is improved on their synthetic. How does that work?

36.  *admin* says:

[January 30, 2010 at 5:30 pm \(Edit\)](#)

There are many enhancements that are continually invented or marketed promoting the improvement of the skating experience. The key is to ensure there is a value to these improvements, beyond the manufacturer's bottom line. Legally, most commercially sold liquids will require an MSDS [Material Safety Data Sheet]. Ask for it to satisfy your curiosity that the food based product they use are safe for your child.

With respect to the Magna Mat, request the scientific studies approved by relevant labs about the claims that static improves glide if placed under their synthetic. Then locate a facility owner, ask questions and then try both surfaces, with and without.

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37.  *mark* says:

[January 30, 2010 at 11:08 pm \(Edit\)](#)

I'm in Southern California.

I plan to build a large wood deck in my backyard and place the surface on top of it. It will be used for hockey skating and shooting pucks. When it isn't being used for hockey, I'd like to use it for basketball (is it slippery?). Is there a "best" manufacturer/product for my situation?

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I've heard that, over time, skating digs groves into these surfaces. I've also heard that these surfaces can't replicate hockey skating on ice. Are these accurate statements?

38.  *admin* says:

[January 30, 2010 at 11:48 pm \(Edit\)](#)

Bladed and running sports have two fundamentally opposing contact points with the surface they are played on. Blade require less coefficient of friction, shoes the polar opposite. For this reason trying to get the best of both worlds will lead get the best of none. You will need to make a decision on which sport best suit your overall goals if you want value for your considerable investment.

If you were desperate, though, you could purchase a low or high density polyethylene which is not as hard, therefore less skatable, and then use a lot of glide enhancer on it "continuously. Then, when it is time for the basketball season, scrub off the remaining residue to play. It still won't feel, or grip, like a sport court, but you might be able to do this. Remember, you will not be able to do both sports simultaneously. Injuries will happen playing basketball on a slippery surface. Skating will not be pleasurable on a highly resistive surface.

Ultra high molecular weight polyethylene [UHMWPE] with oils engineered into it will skate most like ice, but none of these plastics were invented to replicate ice. They were discovered "to be able to be skated on" and subsequently marketed as synthetic ice under different brand names, many with different attributes. They do scratch, and wear and eventually require replacement, but they are great for building core muscles and allowing for skating, which are fundamental for improvement.

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39.  *Bill Clayton* says:

[January 31, 2010 at 12:29 am \(Edit\)](#)

Isn't it true that a denser polyethylene such as UHMWPE will dull skate blades faster and more often than HDPE? I was told that HDPE, though it may be more resistant, it is more "forgiving" on the skate blade and will require less sharpening than UHMWPE. What are your thoughts?

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40.  *admin* says:

[January 31, 2010 at 9:31 am \(Edit\)](#)

The amount of sharpening should be inconsequential to the decision to purchase these synthetics to skate on. First consideration should be the basic ability to skate on it. If the answer is “poor” then the next decision is whether to use glide enhancers to improve it.

At the point that all plastics are effectively equal, either due to their imbedded or surface-applied glide enhancers, the relevance of the different effect of the plastic on blades is eliminated. Essentially though, with “dry” plastics, the tougher UHMW will dull your blade as skate “over it”; the less dense LDP and HDP products will dull your skates as you skate, or cut, “in” them, so-to-speak. There is no clear consensus among skaters which is worse.

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41.  *Bob Acton* says:

[February 17, 2010 at 1:08 pm \(Edit\)](#)

I purchased synthetic ice back in September and I am having a hard time keeping it clean. I notice that while other facilities ice looks very white, ours is very dirty.

I have been using warm water and a mop, but it does not remove black tape marks and dirt from shoes.

Do you have a suggestion in terms of a floor buffer or specific cleaner and what type mop to use.

42.  *admin* says:

[February 18, 2010 at 10:41 am \(Edit\)](#)

Using only warm water and a cloth to clean dirty dishes, is not successful in removing all the grease and grime from them. I suggest the same thought applies to cleaning synthetic. On the overview, depending on the brand you bought, some plastics are more porous than others, meaning that they will absorb more dirt than, for example a UHMWPE with imbedded oils that help repel the environment, making them even tougher, but not impossible, to clean.

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Depending on your installation, a pressure washer is sure to release impacted dirt, but be sure not to strip the plastic. A mild cleaning detergent will help to dislodge some marks, but heavier spot cleaning to remove tape glue is a more likely requirement.

If you use sealants on your synthetic, you may in fact be “sealing” your own fate as some Silicone- and oil-based glide enhancers have a tendency to actually seal the dirt in the tiny blade cuts. If this is an outside location, UV rays may have a tendency to turn some enhancers yellowish as well. Water-based enhancers do not have this issue.

Cleaning is an ongoing process and should be done daily, if not weekly. Allowing shoes on synthetic surfaces creates even more upkeep as transferred dirt is actually brought onto the surface, which skates then force into the cuts.

Some synthetics are more naturally white due to their chemical make-up so you may never get that snow-white look. The best solution would be to call the manufacturer and use their recommended cleaning regime to get your surface as close to its near-new look.

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43.  *A R* says:

[February 24, 2010 at 4:35 pm \(Edit\)](#)

I am planning to open a public rink. I am not able to decide which synthetic ice I should purchase. There is a supplier of Xtraice in my city but I am not sure if Xtraice is the best synthetic ice out there. There is no ice skating rink in the city and I am not 100% sure if people will enjoy this artificial ice.

Can you please help me out with the info about these things as there are very few people who know skating in my city so most will be beginners? This idea of ice skating will be really new here, so I was wondering will beginners enjoy skating on synthetic ice and which synthetic ice you recommend me to use for public rink?

44.  *admin* says:

[February 24, 2010 at 5:25 pm \(Edit\)](#)

The idea of a skating rink should be properly assessed “as a business model” in your city first.

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If skating is a new idea where you live, then what type of plastic to use is far less important right now than the main question, which should be “In a perfect world, will people come to my rink to skate, and will they come back week after week so that I will make money?” If the answer to that question appears to be “Yes,” then your 2nd question should be “What do my potential customers think the ‘Perfect RINK’ should look like, and what conveniences do they want [lockers, skate rental, etc.]”

Once you know those answers, you should hire a professional accountant to help you with a business plan, cash flows, ROI, etc., and make sure you join a local mentoring/brainstorming group to provide a different perspective as well. Then, if that makes sense, you should decide on what plastic to use - for which there is a lot of information on this blog to learn from. You should read each comment, take notes and then if you have further questions, please post them for our review.

Generally speaking, in North America you will spend over USD\$100,000 to build a full 40’x80’ rink including boards, glass, doors and synthetic surface. That should accommodate 30 “public” skaters comfortably. Then there is rent, labour and maintenance and utilities, etc. It is not for the faint of heart – let alone in a market not accustomed to skating.

But that is also what might make it a huge success! Good luck in your endeavours.

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45.  Nick says:

[February 28, 2010 at 10:01 pm \(Edit\)](#)

I have a bit of room in my backyard and am an avid hockey player (and live in Houston), so my parents said that if I pay for it, I can get artificial ice. i want something I can practice my sprints, stops, and shots. What brand would be best, and about how much does it cost? I can only spend about \$500-600 (less would be nice!!)

46.  admin says:

[March 1, 2010 at 10:28 am \(Edit\)](#)

Synthetic plastic costs over \$10 per square foot - sometimes to \$15, or even higher if you buy the type with imbedded oils. I expect you will need minimum a 20’x20’ area for your drills = 400 square feet = \$4,000-\$6,000, or more. Call each

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manufacturer as shown on our Products page to see if perhaps they have any used plastic available. Perhaps even EBay. Check previous posts on what to look for and the values, costs associated with the different types of synthetics on which to skate.

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47.  *Bill Clayton* says:

[March 6, 2010 at 8:33 am](#) [\(Edit\)](#)

I understand that HMW (High Molecular Weight) polyethylene is also used as synthetic ice yet no one has yet to mention it in this blog. Is HMW an option when looking for a higher grade surface without having to opt for UHMW which I'm hearing may be a little "too hard" on the skate blade. Are you familiar with HMW?

48.  *admin* says:

[March 6, 2010 at 12:32 pm](#) [\(Edit\)](#)

It is generally agreed that all synthetics like HMW and Low Density polyethylenes, to some degree, can be skated upon. The real question is "What kind of experience will the skater have?"

HMW [high] and UHMW [ultra high] are not options so much as they are different "types" of plastic grades – more specifically, each has a higher molecular chain count than the last; making them denser and thus more durable, or tougher.

Softer plastics, while not perhaps as abrasive on skate blades, do require greater skate impact and force to generate momentum, and more frequent stride strikes to achieve equal distance due to their higher coefficient of friction [resistance], than UHMW plastics. While it is true that UHMW plastics are harder, they do glide better and require less force and fewer strides to achieve the same result. So, unscientifically speaking, they should appear nearly the same for wear on the blade.

It is an accepted fact that skate sharpening after use on synthetic rinks is generally required twice as often, especially if practicing drills, but the muscle and core development achieved in less 'on-ice' time should negate that minimal overall cost increase.

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If you are using a skating treadmill for a single session, which is equivalent to 8 power skating sessions due to “continuous and forced skating” you actually get four times the mileage “per sharpening.”

However, if you are just doing recreational, or passive, skating then there may be no appreciable difference in the frequency of sharpening at all, regardless whether it is LD, HD or UHMW

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49.  *Candace Tennison* says:

[March 8, 2010 at 2:38 pm](#) [\(Edit\)](#)

Which type of synthetic ice is best for ice speed skates? Is there a treadmill for this?

50.  *admin* says:

[March 8, 2010 at 4:12 pm](#) [\(Edit\)](#)

From a pure “training perspective” all the benefits that are achieved by hockey and figure skaters, can be achieved by speed skaters when skating on a synthetic ice. Skating on a skating treadmill is a different story.

Generally speaking, speed skaters become stride “experts” quicker as compared to hockey and figure skaters. With this in mind, we suggest that speed skaters have the least to gain from over-speed training on a skating treadmill, at least if the skating treadmill is used in a manner that most trainers do.

To make the most of a skating treadmill, it is suggested that speed skaters [as should be the case with other skaters in general] definitely hold onto the hand rail and focus on muscle development. Due to the nature of a speed skaters stride, they almost assuredly would run out of track length and width if they did not hold onto the rail.

We know that figure skates cannot be used on skating treadmills with synthetic plastic due to the toe pics “catching” between slats. Equally, speed skaters may find that the rock, or any custom bend in the blade, may affect usability on a skating treadmill. As well, if long track skaters progress to clap skates, this may add additional difficulty, especially if training on an incline, as the blade may

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come into contact with the skating treadmill when it detaches on the recovery stride.

Training in standard skates may be preferred, especially if using the skating treadmill to achieve aerobic and anaerobic benefits purposely while skating; or if you are using the skating treadmill due to the lack of available local ice time, and you have a need to work the proper muscle groups.

An over-sized running treadmill converted for use by speed skaters can be found on YouTube, but we do not have enough feedback on its effectiveness or availability.