



A training area can be colorful and relatively quiet, thanks to rubber flooring.

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Rubber Sports Flooring Takes A Big Impact

Rubber flooring can deal with ice skates, cleats, weights, and traffic and still look good.



Choosing the right flooring is not always cut and dried. In fact, unless you're prepared for costly repair and replacement, you had better know the capabilities of the flooring you're specifying, its limitations, and how it should be maintained.

But when you're dealing with a specialized area—a weight room, ice-skating arena, or any other sports or athletic surface—the bar for an ideal specification rises considerably. These areas are subject to very heavy traffic, extraordinary elements, and, yes, abuse. Furthermore the flooring can enhance or inhibit the performance and safety of the athletes, kids, seniors, rehabilitation patients, or sports teams who walk, run, practice, scrimmage, stretch, and fall on these surfaces daily.

Rubber flooring has long been considered a material that is ideal for athletic venues. It's able to stand up to intense wear and tear, plays well with water, and offers a slew of green benefits when you use recycled rubber. While its benefits certainly outweigh its challenges, a well-informed specification can help eliminate any potential problems or concerns down the line. As with all materials, it helps to understand the features and benefits, and, most importantly, the kinds of questions you should ask the manufacturer

to ensure that you are getting a quality material that will perform perfectly for your application.

Q: *In what applications does rubber flooring work best?*

A: It's not just for the weight room anymore. Rubber flooring can be used in any area where one might typically specify carpet or other types of resilient flooring. As the rubber and recycled-rubber category has grown in the past 10 to 15 years, people are looking to recycled rubber for its value. Its competitive pricing, unique color and design, durability, natural sound absorption, high recycled content, and long life are very attractive qualities.

Rubber flooring can be used in demanding applications. Think of ice-arena surrounds where skate blades slice across the floor. Consider weight-training rooms for free-weight, cardio, and selectorized training where weights are dropped on the floor from chest level and above. Think about locker rooms that host rowdy football teams after practice—in cleats. Add physical-therapy areas, multipurpose areas, jogging tracks, and general walking areas that receive high traffic, and there aren't many places that wouldn't benefit from rubber flooring.



Rubber flooring's sound-absorption quality helps users of workout mini-areas concentrate on their own training.



Earth-colored flooring helps maintain the natural feel of this facility.

Q: When should a specifier avoid rubber flooring?

A: Recycled rubber should not be used in food-preparation areas, kitchens, or bathroom areas unless a proper permanent finish is first applied to the surface. A finish closes the pores of the flooring, making it more hygienic. It should never be used in these areas unfinished. It is not a "shower" floor; there are better surfaces for indoor shower facilities.

Q: How thick should the rubber be?

A: Thickness should be based on the impact demands of the floor. For example, areas that will receive repeated drops of weights, heavy and repeated foot movements, and exposure to ice-skate-blades will require the most durability. A rubber floor, with a thickness of 3/8 inch, can be used for this application and have an installation lifetime of more than 20 years without showing wear or getting damaged. If the possibility of impact and deep cuts is removed and the only consideration is exposure to heavy foot traffic, the gauge of the floor can be lowered to 1/4 inch, which would be the proper thickness for cardio-fitness areas and light-use selectorized and weight equipment. When the requirements are foot traffic only, the gauge can be 5/32 inch without any loss of durability.

Q: What factors determine flooring finish?

A: Flooring finish depends on the maintenance program that a facility has in place. People generally do not maintain their floors very well. They make the upfront investment and then do not care for the product. Then, in five years, they wonder why it doesn't look so great. A rubber floor is not difficult to keep clean. It just needs proper and regular maintenance using the correct cleaners, mops, and procedures. Unfortunately, most maintenance programs use a string mop and a bucket of water to care for 10,000 sq. ft. This is not going to keep a sports floor looking good.

Because flooring in sports facilities is subjected to impact from objects and then extreme forces from foot impacts, such as weight-lifting movements during training, we do not normally recommend a floor finish. The impacts and forces would cause the floor to wear quickly and mar the finish. However, in other areas that see the more common brand of foot traffic, a finish can be added to provide an extra layer of protection from dirt. The finish also makes the floor easier to mop and clean.

Q: How do you deal with varying traffic loads?

A: Rubber can withstand high traffic loads, even in thinner thicknesses. Again, when the floor is going to receive impacts, heavy traffic, or sports movements, a thicker floor is needed. The manufacturer should be able to provide a range of gauges. For cost effectiveness, you need only specify the thickness for the type of traffic load the floor is expected to endure.

Q: What role does rubber flooring play in sound absorption?

A: Rubber, particularly recycled rubber due to its somewhat porous nature, has an excellent impact sound-absorption quality. Field tests on certain assemblies have shown the Field Impact Insulation Class to achieve a rating of 55. The 1997 Uniform Building Code field-tested standard is 45. While it also makes a difference with airborne sound, when compared with hard surfaces, rubber flooring is at its best in improving impact sound.

Q: Is the smell of rubber present after the installation and if so, how long does it last?

A: Initially, new rubber flooring will produce a slight rubber smell. This can be an indicator of the quality of the recycled rubber. High-quality SBR tire rubber that is well-processed and well-cleaned will produce a very slight odor.

Other ingredients, such as EPDM (ethylene propylene diene monomer), which is mixed in to add color other than black to the flooring, are also very high quality and emit no odor. Proper ventilation plays the largest

role in evacuating the smell, or odors, that are associated with new flooring.

Q: How do I prevent moisture accumulation under the floor?

A: When you work with adhered floor products, moisture accumulation is not an issue. When dealing with loose-laid or modular rubber floor tile, you

Put The Ball In Their Court

When it comes to playing surfaces, a rubber floor would say, "Bring it!" Rubber flooring can be used as a playing surface layered with a shock-absorbing bottom and a harder wear layer. This provides shock absorption, durability, and excellent ball rebound for sports such as tennis, squash, and racquetball.

The only downside could be that rubber flooring offers a high coefficient of friction. While this is great for preventing slips and falls, it's not ideal for continuous-movement sports such as basketball where a player is expected to pivot easily, or volleyball where players are likely to throw themselves to the floor in order to dig a ball. That could result in a nasty rug burn. But there is a solution. In these applications, a clear sealer can be applied to the surface to lower the coefficient of friction.

Vinyl has captured a large part of the multipurpose playing-surface market. The industry offers wood looks, some shock absorption, and decent playability. However, vinyl sacrifices sustainability. With the flood of product manufactured abroad, the quality can be all over the board. Some is very good, but some is poor and will not last. The old saying "you get what you pay for" holds true when selecting any surface, including the installation labor. Make sure a quality contractor installs the flooring, preferably the manufacturer's factory-certified installers. Much too often, specialty-flooring installation is subcontracted out and the installation is botched or compromised by an untrained installer. Products of lesser quality are accepted, and the owner is left with a costly problem.

feature FLOORING

do have to provide ample drainage for the area or be careful to not specify loose-laid rubber flooring if you expect the regular presence of water.

Q: *What factors need to be considered in terms of installation, attachment to the subfloor, and replacing damaged areas?*

A: Sub-floors must be properly prepared to receive new floor coverings. Old adhesive residues must be removed and any floor imperfections must be leveled. A common belief is that thicker floors will hide surface imperfections. Unfortunately, this is not true. Even thick floors at 3/8 inch will telegraph surface deviations and possibly lead to installation failures.

If rubber flooring is damaged, it can be repaired, but it requires a quality repair job by a professional. It will be obvious if you patch a 12-inch damaged area. Replacing a 4-foot by 4-foot area will look less obvious.

We always recommend keeping attic stock of the batch or run for repairs, particularly when a custom color combination was used.

Q: *How "green" is rubber flooring?*

A: As flooring goes, recycled rubber offers a full list of sustainability benefits. As technology has advanced, increasing the quality of products and

the range of design versatility, rubber flooring has come to offer a resilient surface with unbeaten durability and a hard-to-beat sustainability factor. It diverts millions of tires from landfills every year while providing attractive, durable flooring products that work where other floor coverings will fail. It contributes to LEED points on projects. Plus, it can be manufactured using sustainable practices, generating very little waste and using little heat or excessive energy in manufacturing. Other floor coverings simply add recycled content into their base to be "green" or to tout recycled content. The reverse is manufacturing a recycled product while focusing on the performance of the product in demanding applications.

In areas of high impact and high traffic, rubber will not only resist the wear factor but will continue to hold its looks long past other flooring materials. Without the need for costly replacement or refinishing, a facility owner enjoys a low lifecycle cost and, over the course of time, less waste is sent to the landfill. Recycled rubber flooring can last 15 to 30 years with very little required maintenance. Regular mopping and sweeping is recommended to prevent dirt from being ground into the floor. Since rubber flooring needs no harsh cleansers, those toxins are not flushed into the ecosystem.

Manufacturing using ground-up road tires holds the obvious benefit of recycling otherwise unwanted waste. But if rubber flooring is pulled up for a remodel, that material can then be recycled again, taking it to another level of reuse and conserving natural resources. The manufacturing process also yields energy-conservation benefits. The energy used to recycle rubber is significantly less than that used to process new rubber.

Modern-day technological advances allow the function of recycled rubber without sacrificing versatility in design. Rubber provides superior color uniformity and can be combined with any percentage of EPDM rubber to add color to an installation. A wide range of custom and standard colors is available on the market, along with a variety of formats such as roll flooring, interlocking tiles, and modular floor tiles. Coupling that with the ability to create custom logos makes recycled rubber flooring an ideal choice for the design specifier and the facility manager. 

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