

Checklist for Replacing Your Laboratory Floor



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Intro

How often do you think about the floor in your lab?

How often do you think about the floor in your lab? If you're a clinician, you may think about flooring when your back or feet hurt after a long day of standing. Or if there's a spill or some other risk of contamination. Perhaps even more if an expensive piece of lab equipment is damaged by the static electricity in the lab. Then flooring becomes extremely important.

And if you're a facilities manager or building owner with a lab or clean room on your property, flooring take on an even greater importance.

As a flooring company that works with hospital facilities managers and lab management professionals, we typically ask a litany of questions before making a recommendation. Those considerations include: operational; installation, aesthetics and maintenance. Here are some of the more critical questions we ask a lab or facilities manager.

Operational

Do you require special slip resistance?

You don't want anybody to slip in your lab, so obviously you want to select a tile with slip resistance. The question is how much. Some environments may need greater slip resistance. If your facility requires a greater level of slip resistance, then you will want to steer clear of slick materials like epoxies. Seek out products that provide more secure footing. Tiles that utilize a coin-top texture offer better slip resistance.

Do you require comfort, ergonomic, or anti-fatigue properties?

Some floorings are better for humans to stand on for long periods of time than others. For example, epoxies are hard. Same holds true with glued-down vinyl flooring. Typically, the more ergonomic and comfortable the floor, the higher the cost. There are many benefits to taking on the extra expense. Lab or clean room workers who are more comfortable will be more productive and miss less time due to standing-related injuries, like plantar fasciitis. Less injuries and more comfortable work conditions also improve staff retention.

What are the VOC and particulate requirements of the room?

Some floors are better for clean rooms and labs than others. For example, epoxies and vinyls. Clean rooms and labs will have their own standards to adhere to and that's something the flooring dealer should review with customers. For example, some products generate particulates when you scrub. This requires a sealant to be applied to prevent that from happening. Again, this should be part of a review with the flooring company to ensure the flooring meets your requirements.

Do you require any type of chemical resistance?

As a lab or clean room, it's possible your facility might employ chemicals that may impact the material used on the flooring you select. Having a detailed conversation about your operation is critical to making a wise selection. If there are chemicals in your work environment, there are some possible solutions. For example, resistance to certain chemicals, such as solvents or acids. Vinyl is resistant to many chemicals and is generally a good choice. Rubber is good for other chemicals, like chlorinated solvents. If possible, get a sample of the flooring that you are considering and test it against the chemicals that you have in your lab.

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What chemicals should you test your lab flooring for?

The SEFA guide, [Scientific Equipment & Furniture Association SEFA 8-M-2010 Recommended Practices For Metal Laboratory Grade Furniture, Casework, Shelving and Tables](#), refers to 49 chemicals to test for your lab furniture, casework, shelving and tables. A chemical that can splash on the floor as easily as any of those surfaces, right? But does that mean you have to test your flooring for all 49 chemicals? Yes and no. It really depends on your comfort level and current and future work being done in your lab. If you think it's possible your floor could be exposed to a certain chemical now or down the road, test for it.

Do you need a seamless floor for your lab?

Many labs work with ultra-sensitive materials and biohazards and a seamless floor is essential. This can come in the form of an epoxy or flooring that comes in sheets. This will protect beneath the surface of the floor from penetration from dangerous chemicals and germs.

Do you need an antimicrobial floor?

Some labs handle infectious materials. An antimicrobial floor can reduce the risk of spreading germs and should be considered when making a lab flooring decision.

Do you require the floor to be portable for reconfigurations or future moves?

Expansions, downsizing or relocation to a new facility are just some of the reasons why companies want a flooring they can move. When you choose a glue-down option for flooring, you sacrifice portability. Glued down tiles can't and shouldn't be removed and used again. There are flooring products available that utilize an interlocking system so flooring can be moved should your lab or clean room need move to another location.

Aesthetics

What type of finished look do you want? Is it industrial, more decorative clean room, or office space? Does it need to match a certain color? Does it need to be light or dark?

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The topic of aesthetics comes up more than you might think. We have a broad product line, including a variety of colors and price points. For some labs and clean rooms with more electronics, the combination of color and ESD properties has made our FreeStyle ESD product very popular. And while most companies seek our products for the physical properties and how our tiles protect the integrity of the lab or clean room, the subject of color comes up quite a bit, particularly if you are working with an architect.

Installation

Does the underlying concrete pass moisture tests?

If beneath your existing flooring there is concrete, moisture could be an issue and will need to be checked first. Particularly, if the flooring you're considering needs to be glued. In that scenario, it's also not advisable to glue the new floor onto the old floor. It should be installed onto the underlying concrete. If you are planning on using interlock flooring, first test the old flooring for asbestos. Removing flooring with asbestos is a very detailed process. Areas of the floor need to be sectioned off with plastic as air pressure is used to contain any dust.

If new concrete, can you wait for the 90-day cure period?

So, if you can't glue on concrete with moisture issues, it stands to reason that newly installed concrete floors must cure before you can glue down new flooring. Ninety days is the recommended amount of time.

If there is an existing floor, does it have asbestos in either the tile or adhesive?

Both the flooring and the adhesive of your old flooring should be tested for asbestos prior to gluing down new flooring or before installing interlocking flooring. Dealing with asbestos is costly and will delay installation. Interlocking tiles can be installed on top of old asbestos-containing floor without having to remove it.

If there is an existing floor, do you want to install without removing it?

One of the beauties of interlock flooring is that it can be installed over existing flooring. Some facilities managers prefer flooring that requires an adhesive. In that scenario, removing the old flooring first is recommended. You can choose not to take on the expense of floor removal. It's just not preferable.

Can your facility tolerate the dust generated from a sub-floor preparation?

When you rip out the old flooring, it will generate some level of dust. Will that have an impact on your equipment and electronics at your facility? That must be considered and assessed. It could have an impact on your decision to go with a glue-down flooring or interlock.

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Do you need to install around existing lab equipment?

One of the larger obstacles to installing new flooring is existing lab equipment. Moving that type of delicate equipment is a specialty and should be handled by movers rather than flooring installers. SelecTech has partnered with a local mover that specializes in lab moves to handle certain jobs that require moving of delicate and expensive lab equipment.

Maintenance

Does the environment have a lot of dirt? Will the floor need to be cleaned frequently? Does the floor need to look clean and shiny all the time?

In a lab or clean room, it kind of goes without saying that frequent cleaning is necessary. Still, frequency in cleaning is a consideration with what kind of tile you select. Part of that decision is how important the look of tile is to your organization. Some of our products, the FreeStyle ESDPlus for example, stays cleaner longer. If you have a very dirty environment we recommend that tile. Since most if not all labs or clean rooms receive regular or daily cleaning, then you have some flexibility on choice.

Do you have the resources for frequent cleaning, if needed?

One thing to keep in mind is that many times the more expensive tile is less expensive to maintain. So, you could select a less expensive tile, but it will require more in maintenance (e.g. additional janitorial services; more expensive floor maintenance equipment). Over time, the more expensive tile will probably offer better value and cost less than the less expensive tile. This is something we typically review with customers in discussing budget for flooring.

Case Study: BC Biomedical

When BC Biomedical Laboratories needed to replace their floor due to moisture failure, they needed a free-floating floor that would resist moisture, feel comfortable underfoot, and install quickly. FreeStyle Interlocking Tiles was exactly what they needed and have become their standard flooring for all installations directly on slab. And because FreeStyle Interlocking Tiles are available in a variety of colors and designs, it can be matched to the existing color scheme in each BC Biomedical location.

“At BC Biomedical, we make a commitment to deliver uncompromising service to our customers. FreeStyle Interlocking Tiles have helped us keep that commitment by installing quickly, resulting in less disruptions. We also strive to be a great place to work, and FreeStyle Interlocking Tiles help there too, by being so comfortable to walk and stand on”.



Case Study: Waterbury Hospital

Waterbury Hospital needed to replace the flooring at its main laboratory at its facility at 64 Robbins Street, Waterbury, Connecticut. The hospital originally considered an epoxy, but the existing floor was not in the greatest shape and the necessary drying time would require the lab to be unavailable for several days. With the assistance of SelecTech distributor Desconn, Inc. Terrazzo & Epoxy Flooring Contractor of West Haven, Connecticut, Waterbury Hospital chose our FreeStyle BioLock product.



Our BioLock product met the standards of what was needed for a hospital lab. Even better, with its interlocking technology, it could be installed over the existing floor, with no downtime. The installation of more than 2,200 square feet of FreeStyle BioLock took place in December with zero downtime.

"The installation of the 2200 square feet of flooring did require close coordination with hospital staff over the three days we were there. Yet when you consider the scope of the job, the superior quality of the floor and zero down time, going with SelecTech's FreeStyle BioLock was a win for all parties."

- Joe Cannizzaro, Desconn, Inc. Terrazzo & Epoxy Flooring Contractor, West Haven, CT

Case Study: Giner Labs

Giner Labs is a world leader in electrochemical research and development with a 40-year record of success. Giner ELX supplies the world's most advanced PEM electrolyze stacks and systems to customers all over the world. For the renovation of its lab facilities in Newton, Mass., the general contractor, Altair Construction, chose our FreeStyle BioLock product.

Our interlocking FreeStyle Biolock flooring product has become a favorite of general contractors who specialize in lab renovations for a number of reasons. One is for the variety of color options. Another is for the minimal subfloor prep and ease of installation.

All totaled, Altair Construction installed 2,000 square feet of FreeStyle BioLock.



Conclusion

If you are thinking about a glue down surface, you must think of all the steps involved, especially if it's an existing laboratory. First, you must rip out the existing floor. To do that will require disconnecting all the equipment from power, water, air and electric and then removing all the equipment. Then comes prepping the floor, gluing down the new floor, waiting for it to cure and that usually takes a few days. After that, you will have to move back all the equipment and then reconnect to air, water, electric, etc. and re-level everything. From a business standpoint, you must ask can you retain some level of functionality with all that going on. Most businesses can't, and a shutdown is the only way if you want to glue down your new flooring.

Want to learn more?

Thank you for downloading our eBook. We hope you found it useful. If you are looking to take the next step, click on the button below to learn more about FreeStyle BioLock flooring, a tile made specifically for labs and clean rooms. You can also call our office at (508) 583-3200,

[Download our FreeStyle BioLock brochure](#)

About SelecTech, Inc.

SelecTech, Inc., which was founded in 1993 with the mission of creating valuable products from scrap plastics. The company has become a leader in the manufacture of flooring products from recycled materials and uses one million pounds of recycled materials annually. Their floor products—which include StaticStop, FreeStyle and Place N Go flooring tiles—are made with up to 100 percent recycled content, are 100 percent recyclable and installed without adhesives, making them some of the “greenest” and most cost-effective flooring products available. The unique interlock system on SelecTech’s flooring products enable them to be installed at a much lower cost, without a lot of costly downtime, which provides significant value to customers.

SelecTech is headquartered at 33 Wales Avenue, Suite F in Avon, MA. For more information about SelecTech, visit <http://www.selectech.com>.