



HIXSON
ARCHITECTURE ENGINEERING INTERIORS

R&D Perspectives

Four Things to Know About Lab Design Material Selection

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Imagine this: Today marks six months since your R&D team moved into new space. At move in, everything was sparkling clean and shiny. However, now the countertops and flooring are starting to become spotted with stains that chemicals have left behind.



As a lab owner or manager, keeping your lab surfaces looking and performing their best is an important goal when selecting materials. Yet even the most diligent of lab technicians can miss small spills or splatters that can work their destructive magic on counters and floors in a very short amount of time. Therefore, it is important to select materials that can stand up to spills when they occur. When selecting flooring, counters and cabinetry materials, you need to know these four things:

- 1. What are the costs of cost savings?** When choosing materials, it is typically a good idea to conduct a Lifecycle Assessment of the costs and benefits of your choices. The most chemically resistant materials tend to be the most expensive. While less expensive materials are available, they are also more prone to staining and may require frequent replacement and maintenance. These costs that can quickly negate the initial savings. Consider Vinyl Composition Tile (VCT) as an example. Many lab owners choose VCT over chemically resilient (yet more expensive) resins or solid vinyl because damaged squares can be popped out and replaced. However, over time the maintenance costs associated with stripping, waxing, and replacement may be more than the initial cost of the more expensive materials.
- 2. What are the chemicals that will be used in the labs?** As mentioned in #1 above, some lab chemicals are more corrosive than others. By tailoring your finishes based on lab type and use, you can avoid spending premium dollars on labs that do not require higher chemical resistances.
- 3. Who are your lab users?** Material selection should also consider the culture of your lab and the pride of ownership that the lab users feel in their space. Lab users who take ownership and have pride in their space tend to be diligent about cleaning spills immediately. In these cases, it may be safe to go with less expensive materials because your users will take better care.
- 4. Who is cleaning the space nightly?** If your lab uses a professional, external cleaning crew, how thorough are they...and how thorough are they ALLOWED to be? For example, are the company's workers authorized to simply mop floors or are they allowed to wipe down counters, where delicate testing may be in progress? And this may not just apply to external cleaning crews...in-house cleaning staff may be subject to the same type of rules depending on the risk policies in place. Why does this matter? If cleaning staff are prevented from wiping down counters, they may notice a spill on a counter on a Friday afternoon but not be authorized to clean it – and the spill then has all weekend to create a stain until it is found on Monday morning.

In the end, it is important to remember that just because a material looks great right away does not mean it will be best over time. Addressing the factors noted above will help you make the best, most cost-effective choice for your specific lab environment.

experience in brief

Earlier this month, Hixson architects Bryon Sutherly and Paul Thamann spoke on "Maximizing Lab Effectiveness with Purpose-Built Lab Design" at the 2019 Lab Design Conference. If you missed it and would like to learn more about their presentation, send us an email: info@hixson-inc.com

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