

# The Facility Manager's Guide to Choosing Bathroom Materials

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At first, designing a bathroom might seem like a fairly simple task. After all, you've probably been in hundreds of them throughout your life, so it's easy to consider yourself a subsequent expert.

But the truth is, a lot of factors need to be considered when designing a quality bathroom, and no factor is more important than how you'll choose which materials to use.

In this instructional guide, we'll walk you through the selection process and teach you how to select quality materials for your commercial bathroom build. Here's a look at some of the topics we'll be covering:

- What material options should I be considering?
- · Reducing the cost of your facility without sacrificing quality
- Is initial cost or life cycle cost more important?
- How to ensure a safe and clean facility

Let's start by looking at some of the common materials needed for building a commercial bathroom.

### **Your Bathroom Material Shopping List**

As simple as a commercial bathroom seems at first glance, you'll find an endless number of materials. Most importantly, you need to source nine key components: flooring, wallpaper/paint/tile, mirrors, vanities, toilets, bathroom partitions, ceiling materials, insulation/soundproofing, and a means of ventilation.



### Flooring

When choosing the flooring for your commercial bathroom, it's important to keep in mind that water and moisture will play a big role in deciding which materials you should use. For example, you'd never want to use carpet in a bathroom because it holds moisture and is difficult to clean. The same is true for porous materials like wood.

Virtually every commercial bathroom features tile flooring. This material is not only durable but also extremely easy to clean.

### Wallpaper, Paint, or Tile

You'll need to decide how you'd like to style the walls of your new restroom. Wallpaper is a relatively inexpensive option and even comes in a variety of colors and patterns. However, moisture can damage the wallpaper fairly easily, especially if there's a leak or flooding. Paint also has similar weaknesses and leaves the walls exposed to rot or damage.

Tile is certainly a more expensive option in terms of initial cost but undoubtedly easier to clean and has a longer life span than paint or wallpaper.

### Mirrors

It's customary to place one mirror over each sink that you plan on having in your bathroom. Mirrors should be large enough and placed at an appropriate height so anyone can see their reflection easily. You might also consider adding a full-length mirror near the exit for guests to use before leaving.



Keep in mind that mirror placement is important. You don't want to accidently give a view of an area that was meant to be private to someone looking into the bathroom from outside. So be mindful of where you'll place your mirrors.

### Vanities

Choosing a vanity for your bathroom is important. You'll need to decide how many sinks you'd like to have installed, if there needs to be cabinets or storage space underneath, and what material you'd like it to be made of. Although stained wood can offer a dramatic look, it's not a good material for bathroom vanities. Given its porous nature, wood is highly susceptible to mold, rot, and mildew.

Instead, look for vanities made from non-porous materials like high-density polyethylene (HDPE).

### Toilets

No bathroom would be complete without toilets. There are many options and models to choose from when it comes to commercial toilets. Some are anchored to the wall, while others are attached to the floor. Some toilets flush automatically using a motion sensor, and some require a manual handle. It's up to you to decide which style is right for your facility.

### **Bathroom Partitions**

Bathroom partitions are essential for adding privacy in your commercial bathroom. Again, you have a number of options and materials to choose from. Stainless steel, for example, is one popular material for partitions. However, it's easily damaged and prone to rusting.



HDPE, on the other hand, is resistant to rust, mold, and even graffiti. Plus it can be designed to mimic the look of traditional stainless steel.

### **Ceiling Materials**

If the ceiling is exposed in your facility, you'll want to create a cozier ceiling inside the bathroom. This will make the bathroom more welcoming to guests and help to prevent noise from echoing around the facility.

### Insulation/Soundproofing

Soundproofing the walls and ceiling of the commercial bathroom is a great way to add additional privacy. You might also consider adding a speaker to play music in the restroom, which can act as a type of sound disruption device, not to mention elevate the atmosphere in the restroom.

### Ventilation

Proper ventilation is essential for keeping harmful fumes from cleaning chemicals, offensive odors, and moisture from collecting in your new bathroom. Ventilation can be achieved by using air ducts, a small private window leading outside, or both.

### **Tips for Keeping Your Design Within (or Under) Budget**

When you start adding up the costs of your materials, you might find yourself going way over budget. Don't panic. The first thing you should do is review the budget itself. Make sure that the project cost is reasonable and logical for the scale of the project. It's not at all uncommon for a proposed budget to be significantly underestimated.



If the budget is reasonable and it's your design that's putting the project in the red, then it might be worth taking a look at the materials you're choosing. One way to stay within budget is to consider how much of any material is actually needed. For instance, does your facility need to have five individual toilets or could it get away with having only four? Not only would you save money on the toilet itself but also the additional partition. The same assessment can be applied to any sinks, mirrors, or other fixtures inside the bathroom.

If the cost of materials is still putting the project over budget, you should look at each material's initial and life cycle costs. Knowing these figures might help to put the minds of building execs or supervisors at ease if you can justify the expense with long-term savings.

### Initial Cost vs. Life Cycle Cost: Which Is More Important?

Before we get into explaining which cost evaluation is more important for you to consider, it would be helpful to first define exactly what we mean by initial and life cycle costs.

**Initial cost**, like it sounds, is the amount you pay to purchase the material. The general rule is true for most building materials that the lower the initial cost, the lower its quality and shorter its life span.

**Life cycle cost**, on the other hand, refers to the actual cost of the material over the course of its entire life span. This includes the cost of maintenance, anticipated repairs, or replacements. For example, if Toilet 1 costs \$100 less Toilet 2, but Toilet 2 has a life expectancy three times as long, you'd actually be spending more money on Toilet 1 in the long run. Deciding whether you want to base your materials on initial or life cycle costs is a judgment call, but it's highly recommended to use life cycle cost whenever possible since this analysis is actually more cost-effective and helps to reduce waste.

### **How Does HDPE Compare to Other Materials**

To help you get a better idea of what life cycle costs you can expect, we compared three popular materials—HDPE, phenolic, and solid color reinforced composite (SCRC)—in terms of durability, cost of ownership, and more.

#### **Surface Durability**

At 0.001%, HDPE has the best abrasion resistance with the lowest surface wear. Phenolic (0.009%) and SCRC (0.013%) have a higher surface wear, indicating a lower abrasion resistance than HDPE.

#### **Screw Retention**

HDPE performed well in screw retention tests. SCRC, on the other hand, failed at less than half the pull force needed to remove the same fastener. A portion of the SCRC surface even broke off. This could negatively impact hardware mounted to bathroom partitions.

#### Total Product Cost vs. Length of Warranty

HDPE has a lower initial cost than phenolic or SCRC and provides a lower cost of ownership due to its performance, durability, and long warranty. Over a 25-year period, HDPE costs significantly less than the other two materials.



### **Choosing Materials that Promote a Safe, Clean Facility**

In addition to choosing high-quality and cost-effective materials, it's important to consider the safety and sanitation aspects of your facility. For example, choosing porous materials that can easily grow mold could negatively impact the air quality of the bathroom. Meanwhile, rusted metal partitions could leave a dangerous safety hazard for guests.

When choosing materials, consider what impact, if any, they might have on the indoor air quality (IAQ). Any surface that might require occasional repainting could cause poor IAQ due to paint fumes. By selecting safe, environmentally friendly materials, you can even help your building gain points toward Leadership in Energy and Environmental Design (LEED) certification.

#### Let's take a look at some of the pros and cons of common bathroom materials:

# Metal

#### Pros

- Can be painted any color
- Relatively inexpensive

#### Cons

- Subject to dents
- Easily damaged or scratched
- Highly susceptible to mold and mildew
- · May need to be repainted over time

## **Stainless Steel**

#### Pros

- Resists mold and mildew
- Multiple finish options

#### Cons

- · Can rust when exposed to moisture
- · Easily dented or scratched
- · Highly susceptible to graffiti

# HDPE

#### Pros

- Available in multiple colors and textures
- · Resistant to mold and mildew
- Resistant to graffiti
- Easy to clean

#### Cons

· Higher initial cost compared to some options



No matter what size bathroom you're designing, the safety and health of the people using the facility should be top priority. Saving money on low-quality materials will most likely end up costing you more down the line, so be sure to choose your building materials wisely.

### Is HDPE Right for Me?

Of all the bathroom materials available, HDPE is certainly the most equipped. It's resistance to common factors like moisture, mold, mildew, bacteria, and graffiti make it a perfect option for any commercial bathroom. Plus HDPE is extremely easy to clean, which can help to make your cleaning staff more efficient.

To learn more about HDPE bathroom partitions, vanities, and more, speak with a professional retailer or manufacturer like Scranton Products.

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