



The color of mortar contributes to the aesthetic of any brick structure. Image Credit: Unsplash user Francesco Mazzoli

It's the same old story. Brick gets all the press, but it's really the mortar that's holding everything together. Which means that, for architects, contractors, homeowners, and mortar manufacturers, the color of mortar is every bit as important to the overall aesthetic of a structure [as the color of brick](#). While few may notice or comment on a mortar color that perfectly complements the hue of a building's brick, incorrectly colored mortar can become glaringly obvious to even the casual observer. For this reason, contractors pay close attention to the mortar color specified by architects and desired by homeowners. Manufacturers, therefore, must closely monitor their products to ensure they continually produce the mortar colors they advertise. This is especially true for manufacturers who fill special color orders from architects, mixing to the preference of their customers.



Architects choose mortar to match the color of their materials. Image Credit: Unsplash User Mike Tinnion

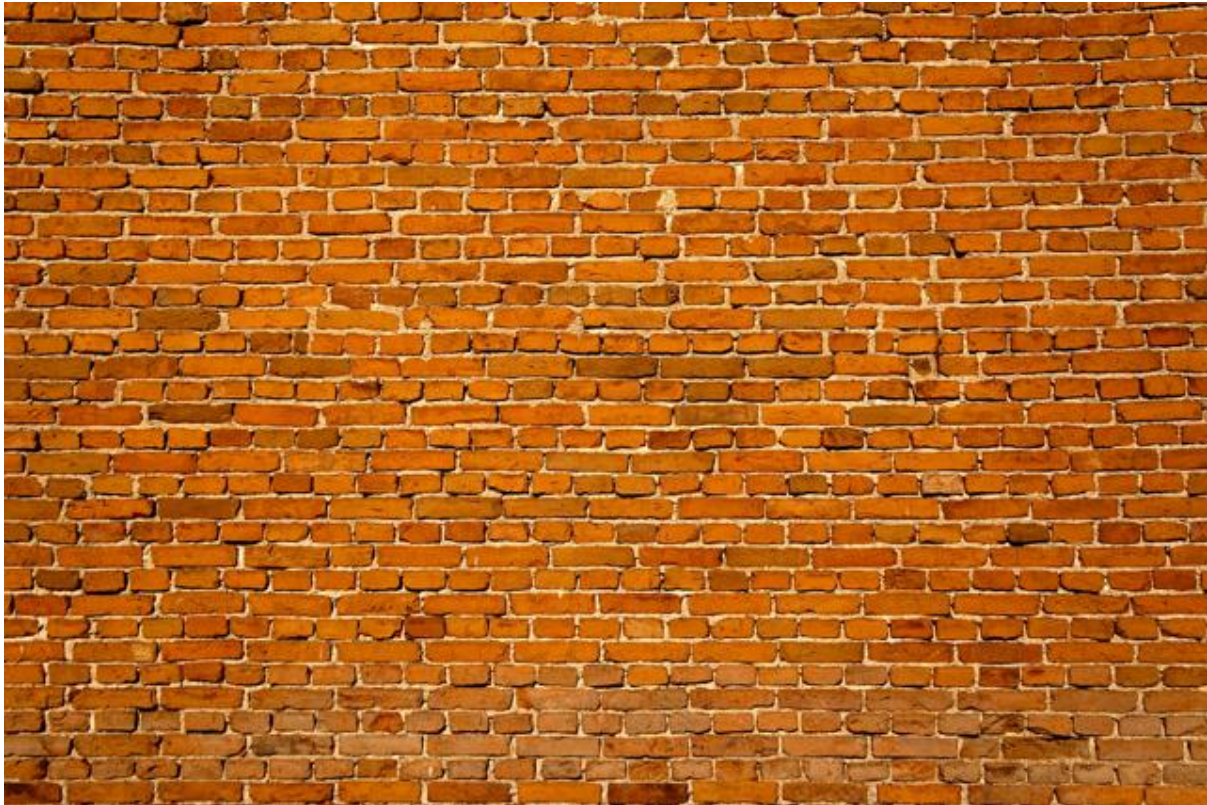
#### Spectrophotometers Measure Mortar Color Objectively

Manufacturers who produced inconsistently colored mortar stand to suffer reputational damage. Few architects or contractors would deem inexact coloration acceptable and as a result are less likely to risk the aesthetic appeal of their project on a manufacturer's spotty consistency record. After all, their reputation depends on the overall aesthetic of the finished structure as well. This reputational damage can seep down into the homeowner market as well, as homeowners and other amateur bricklayers are likely to choose their mortar based on recommendations from trusted contractors or the store clerks who sell them mortar.

Fortunately, controlling the color of mortar is a relatively simple process for manufacturers. Primarily, mortar color varies [based on the color](#) and ratio of sand in the mortar mix.<sup>1</sup> For specialty colors, [dry pigments can also be added](#) to the mix. However, the simplicity of this process does not mean that ratios [can be eyeballed](#), nor does it diminish the importance of instrumental color measurement. The inconsistent nature of the raw materials means that each batch has the potential to come out a slightly different color. This increases the importance of active color quality control during the mixing process, as relying solely on pre-measured formulas will produce inexact results. As a result, an objective color measurement process is necessary even when producing batches of the same color material over and over. Likewise, producing mortar batches to the custom standards of architects is impossible with accurate, objective color measurement.

To ensure that each batch of mortar falls within established tolerance standards, manufacturers can rely on reflectance spectrophotometers. These instruments measure the color of opaque materials, including dry powders or liquid solutions, by analyzing light reflected off samples of the material. Samples can be measured within seconds and pass or fail results will display immediately on the

instrument's screen. This rapidity ensures that production will continue with a minimum of interruption.



Consistent mortar coloration is a desired trait in large and small projects. Image Credit: Unsplash User Namroud Gorguis

#### Enhancing Communication and Ease of Use

Unlike human observers, spectrophotometers measure color objectively. The human eye can observe color differently based on the lighting, time of day, mood of the observer, and other subjective factors, leading to potential disagreements between different observers, such as a manufacturer and an architect. By contrast, spectrophotometers use a controlled burst of light to gather color information from a sample, ensuring both reliability and repeatability. Furthermore, instead of measuring color comparatively and describing it in inexact names—mauve, magenta, maroon, etc.— spectrophotometers convert color into a numerical value, which maintains a constant definition. This eliminates the possibility of inexact color matching due to conflicting definitions of color or poor communication.

[Modern software solutions](#) have made spectrophotometers dramatically simple to use. Preset tolerances for established mortar colors can be saved on the instrument itself, ensuring color consistency across years of measurement. [Specialty colors can be programmed](#) into the instrument as well, either via the input of the desired color coordinates or direct measurement. Measuring a sample is as easy as a pressing a button.

#### The HunterLab Difference

Manufacturers of [mortar and other building products](#) have been relying on HunterLab spectrophotometers for over six decades. Based on what we've learned from our customers, we've fine-tuned our instruments to deliver the accuracy and reliability manufacturers need for their

products. Just as architects and contractors depend on the quality of their manufacturers, manufacturers depend on HunterLab to make sure their mortar is the color it needs to be. [Contact us](#) to learn more about our innovative products, customizable software, and dedicated customer support services.

1. "Mortar Colors", <http://masterbrick.com/products/mortar/mortar-colors>