

# How to Use Integral Color for Concrete

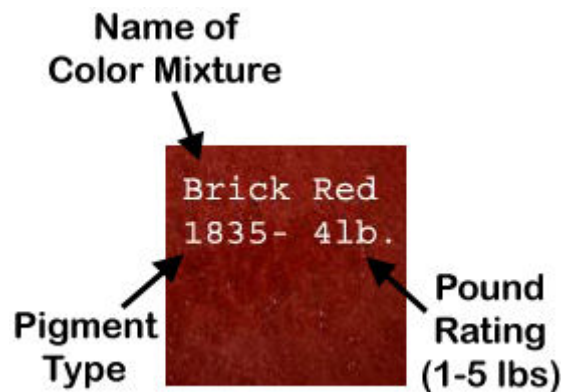
Direct Colors Inc. Color Chart for integral color/concrete pigments is designed to provide a close approximation of what our customers can expect achieve in gray or white concrete with our pigments. For custom pours such as countertop mixes, plaster, stucco, mortar, grouts and other concrete-based products, DCI has found that the colors vary within an acceptable range to the majority of our customers, particularly when correctly adjusted to the specific job requirements. The pigment needed to achieve a specific color is based on the amount of cement in the mix rather than the total weight of bag. Direct Colors Inc. has also provided a quantity calculator to accurately determine the amount of pigment needed for any project. The tool is designed to calculate for truck pours, custom concrete batches and bags of ready mix concrete. For more information on our [quantity calculator and concrete pigments](#), visit [www.directcolors.com](http://www.directcolors.com).

## \*\*\*\*\*Mixing Micro-Pigments\*\*\*\*\*

DCI micro-pigments, particularly the blue pigment, weigh considerably less than standard iron oxide-based pigments. To avoid streaking and pigment float out, the ingredients must be combined DRY before adding any liquid to the mixture.

## Truck Pours

To determine how much pigment/yard is required for your project, simply multiply the pound rating (see example below) by five to ascertain how much pigment is needed per yard of concrete to achieve the desired color. For smaller jobs, DCI recommends using the custom concrete batches feature on the quantity calculator tool mentioned above.



### Example: Achieving a Brick Red Color in 20 Yards of Concrete

Firstly, the color Brick Red is achieved using gray cement not white. Using either the picture above or our DCI Color Chart (Gray), find the pound rating for Brick Red, which is listed at 4lb. Using our [quantity calculator](#) or by multiplying the pound rating by 5, find the pigment per yard needed for your job. The pigment required per yard for Brick Red is 20 pounds. The total amount of pigment required for 20 yards of concrete is 400 pounds. However, a concrete truck will not bring all 20 yards to your job site at once so a per truck calculation must be performed. In this example, each truck pour would consist of 10 yards per truck. Again using the quantity calculator, determine the pigment needed for

each truck, which is 200 pounds per pour. Being consistent with the water levels, mix ratios, and the amount pigment per truck pour is critical in achieving uniform concrete pours. The pigment should be mixed with the concrete in the truck. The pigment must be thoroughly mixed with the concrete for a minimum of 10 minutes before pouring or streaking and blotching can occur. The concrete can then be poured and worked as normal. As the concrete sets up, the color will appear to fade. This is a normal appearance for colored concrete. To protect the color from weathering and to enhance the appearance of your concrete, apply a solvent or water-based sealer to your project surface. Sealer should not be applied until the concrete has properly cured or dried. Concrete slabs can take over a month to cure while countertops one to two weeks. Cure time is also determined by temperature and other weather conditions, such as humidity and rain. Once sealed, the color will be richer and considerably darker than before it was sealed.

### Coloring Pre-Bagged Ready Mix

Depending on the pound rating (see figure above) for the color selected, use approximately 50 grams (1.76 oz.) of pigment per pound in the pound rating for an 80-pound bag of ready mix. For a 60-pound bag, use approximately 37.50 grams (1.32 oz.) per pound of pigment required. The [DCI quantity calculator](#) can also be used to provide this or any other calculation for your pour.

#### **Example: Achieving a Brick Red color in an 80 lb. bag of ready-mix concrete**

To achieve a Brick Red color in an 80-pound bag of ready-mix, mix in 200 grams (7.6 oz.) of pigment. In other words, add 200 grams or 7.6 oz. of pigment for each pound of the color's pound rating. Pour and work with the concrete as normal.

### Customs Blends

Custom mixes such as countertops, mortar, grouts, plaster, stucco, and plaster will contain varying amounts of Portland cement and may also have hydrated lime added. As only the cement and lime will take color, it is important to have the exact weight of each before adding pigment to the mix. Most pre-mixed products have this information on the package. For DIY custom batches, weigh out the cement and lime on a scale and use that figure to calculate the desired amount of pigment on the [DCI's quantity calculator](#). Select the pigment per custom batch of concrete calculator and enter the total amount of both lime and cement to get the correct pigment value.

For more information on DCI concrete pigments, overlay or other products, visit [www.directcolors.com](http://www.directcolors.com).