

## **GENERAL INFORMATION**

The attached color chips are based on mixing 5 pounds of color with 94 pounds of Gray Portland Cement and 200 pounds of yellow sand. In actual practice, variations from these colors may result due to local differences in the color of cement and sand used, the ratio of cement and sand, and the curing method used. In general, for cleaner, brighter colors, we recommend the use of White Portland Cement.

## **MIXING DIRECTIONS**

If mixing is done by hand, place the sand in the bottom of the mixing box, spread the cement over it, and sprinkle the predetermined amount of pigment over the cement. The whole batch should be thoroughly mixed dry until the entire batch is of uniform color and free of streaks. Water should then be added to bring the mixture to the proper consistency and the whole batch wet mixed. Do not use more water than is necessary as a wet mix is difficult to handle and weakens the concrete. On large jobs it is often economical to mix mechanically rather than manually. When using a mixer, the same care must be taken in weighing all ingredients and in thoroughly dry mixing to a uniform color before the water is added.

## **QUANTITY RECOMMENDATION**

We generally recommend five pounds of color per ninety-four pound bag of Portland Cement. However, lighter pastel shades can be obtained using one to three pounds, while deeper shades may require seven to eight pounds. Never use more than ten pounds of color per bag of cement. For mixing convenience, all colors are available in both 1 pound and 5 pound boxes, and 25 pound and 50 pound bags.

## **APPLICATION**

### **COLORED CONCRETE ALL THE WAY THROUGH**

After mixing the concrete as described under mixing directions, place, finish, and cure as you would ordinary concrete. Do the finishing troweling only after the moisture has disappeared from the surface.

### **COLORED TOP LAYER CONCRETE**

Lay base layer of uncolored concrete in usual manner allowing one inch for the top layer. While the base is still wet, yet stiff, and the surface water has disappeared, place one inch of colored concrete on top, working it thoroughly to force the air out of the mass. Be certain to mix the colored concrete as outlined under mixing directions. Trim off any surplus with a trowel and level. Do the finish troweling only after the moisture has disappeared from the surface. After the surface has set enough to withstand weight, cover with burlap and keep moist until set. This method requires a little more labor, but can save a considerable amount of color.

### **DRY SHAKE METHOD**

This is the least expensive, but most difficult method to carry out satisfactorily. It is recommended for only those well versed in cement work. Dry mix one part color, two parts sand, and two parts cement. After the surface water has evaporated from the concrete, sift the dry mix through a screen evenly onto the surface. When the powder appears moist, work it into the surface with a float. If a smooth surface is desired, go over it with a trowel but avoid any water coming to the surface. Five pounds of color will do approximately 100 square feet of surface.

### **REDUCTION OF EFFLORESCENCE**

Colors have no effect on efflorescence but make it more noticeable, especially on deeper colors, just as it shows more with gray cement than it does with white cement. To reduce efflorescence use clean, soft water and cleaned, washed aggregate. Tamp the concrete well to insure consolidation. If it appears, wash the surface with a weak solution of Muriatic Acid. You can also add waterproofing agents such as calcium stearate to reduce the possibility of water reentering the finished concrete.