



TECHNICAL BULLETIN # 2

Coloured Concrete

In order to enhance the architectural features of concrete projects, designers can use colour. Concrete can be almost any colour desired beyond its standard grey. Pigments, shakes and stains are used to produce the range of colours. The colours can be used in conjunction with various textures including exposed aggregate, stamped and form liners.

Colouring Methods

Pigments: Pigments are added at the ready-mix plant to produce integral colour throughout the concrete mix. It does not affect the placing and finishing procedures and it can be used to colour concrete for both vertical structures as well as flatwork.

Dry Shakes: Dry shakes are used to limit colouring to the top layer of concrete flatwork. Although this method will reduce the cost of colouring concrete over the integral approach mentioned above, it presents a number of limitations from the aspects of both the finishing process and the potential service life of the final hardened product. Shakes are applied during the finishing process and, as such, enhance the risk of over-finishing which could result in surface defects or reduced durability, particularly in air-entrained concrete for exterior applications exposed to cycles of freeze-thaw.

Stains: Stains and paints are used to colour hardened concrete. They are often used to change the colour of the structure or to cover-up colour discontinuity. Although this is probably the most economical way to colour concrete, it will require periodic reapplication of stain or paint as previous coats are abraded or weathered.

Typical Concrete Colouring Materials

Blues Cobalt Oxide

Greens Chromium Oxide

Bufs Synthetic Yellow Iron Oxide

Reds Red Iron Oxide

Browns Brown Iron Oxide

Blacks Black Iron Oxide