

Answers to Commonly Asked Questions



Detailed below are answers to some of the more common questions that are asked in relation to **Colourmix**. For more detailed information or if you have questions that may relate to a specific project please speak to a **Colourmix** representative.



Q. Can I use Colourmix to colour concrete topping layers?

A. Yes. **Colourmix** colours can be used to colour concrete to its full depth or to colour topping layers over unpigmented concrete slabs. Topping layers tend to be 50mm to 100mm in depth.



Q. Do Colourmix colours cause plastic shrinkage or plastic settlement cracking?

A. No. Plastic shrinkage and plastic settlement cracking are caused by a number of reasons these generally relate to poor preparation, placement and finishing and curing techniques. Evaporation retarders such as aliphatic alcohol are recommended when installing coloured concrete.



Q. Are there any admixtures or additives that cannot be used with Colourmix colours?

A. Yes. Admixtures (typically accelerators) containing calcium chloride must not be used with **Colourmix** pigments. Common super-plasticisers, air entrainers, water-reducers, fly ash, surface retarders, and non-chloride type set accelerators and retarders should be compatible with **Colourmix** pigments. Always check with the admixture manufacturer/supplier to confirm that their product is recommended for use in coloured or 'pigmented' concrete.



Q. Do Colourmix colors affect concrete strength?

A. No. Independent laboratory test results demonstrate that **Colourmix** colours, when added to otherwise normal class concrete, and used in accordance with prescribed dosage rates, will not adversely affect the initial or long-term strength development of the concrete.



Q. Do Colourmix colours cause efflorescence?

A. No. **Colourmix** colours neither stop or promote the occurrence of efflorescence or "lime bloom". Efflorescence is typically the result of the hydration process of cement. As concrete hardens, left over free lime from the cement and other raw materials, dissolves with water e.g. rain, that has ingress through open capillary pores. This free lime then migrates to the surface of the concrete and reacts with carbon dioxide from the air, which in time forms insoluble calcium carbonate or 'white salts' **Colourmix** colours have no effect on this chemical process. High degrees of the white efflorescence may however be more noticeable on darker coloured concrete.



Q. Do Colourmix colours leach out of concrete?

A. No. **Colourmix** colours are made from inorganic, synthetic, pigments that are not soluble in water and are of sufficient particle size to be completely bound into the cement matrix as the concrete hardens and 'sets'. The physical performance of **Colourmix** in concrete can be equated to very fine aggregate particles that, like aggregate, will remain in place as long as the cement matrix remains integrally sound. **Colourmix** colours do not contain any materials that may leach out, fade or be incompatible with the concrete or its component raw materials. They do not contain organic pigments, dyes or carbon black.

Q & A





Q. Can I use a sealer on my Colourmix coloured concrete?

A. Yes. The use of proprietary sealers is optional and is not a requirement. Sealers can have distinct advantages for some applications and their use should be given careful consideration. They can help to reduce the ingress of dirt and oil particles and help keep decorative concrete in its original state for longer. Some sealers may affect the final colour of the concrete by virtue of their light scattering or reflectance characteristics. For example surface sealers will tend to enhance the colour in decorative concrete. Consult a specialist or your sealer supplier for full details.



Q. Does pumping affect the colour of concrete?

A. No. The physical and visual properties of **Colourmix** colours are not altered by the mechanical movement, vibration or by heat generated during the mixing or pumping of concrete. Mix designs may be different for concrete intended for pumping so the effect on the resultant colour may need to be considered if final colour is critical.



Q. Does the amount of Colourmix I need to add increase with higher strength concrete?

A. Yes. The standard **Colourmix** dose rates are designed for 25MPa to 32MPa concrete. Due to an increase in the cement and other binding materials required in the mix design, higher strength concrete (>32MPa) requires more pigment to be added to achieve the same colour.



Q. Does Colourmix affect concrete shrinkage?

A. No. Independent laboratory test results show that **Colourmix** colours, when added to otherwise normal class concrete and used in accordance with prescribed dosage rates, will not adversely affect the shrinkage characteristics of the concrete. **Colourmix** colours are very fine powders and should be considered as a fine component in a concrete mix design.

Contact our Oxerra sales team if you have questions relating to your next decorative concrete project.