

Concrete Topping Slabs

Diamond polished finish and Standard finish

Interior concrete floors are becoming nowadays more and more in demand, most of all on high-end residential settings. Homeowners are often seeking that unique character that concrete floors offer. No matter what style is your home, we can create the perfect floor slab to complement your design, modern or classic. Pouring an interior finished floor slab requires more skills, attention to detailing and planning than any standard outdoor concrete. It is very important to plan details like concrete mix design, radiant heat system, finishing technique, size of crew, colors and finishes, and that's where DelGrosso Design experience and knowledge come in as determining factor.

Topping slabs – These are floors poured on top of existing subfloor, typically a structural slab or plywood subfloor. Concrete (unlike cement and engineered cements) needs a minimum thickness in order to maintain structural integrity. Whenever possible we recommend a 2-1/4" thickness over the substrate highest point. Less than 1-3/4" the topping slab will lack structural strength, so in these cases the use of engineered cements is recommended. 1/4" welded wire sheets are always embedded in topping slabs to increase the strength and provide structural integrity in case of cracking.



Structural slabs – This type of floor slabs have to provide a much higher strength than topping slabs and at the same time provide an appealing finish. This combination of factors sometime limits the type of finish that can be achieved. Often details such as control joints design and trowel finish are under looked by companies specializing in structural concrete, creating issues during the floor refinishing phase. At DelGrosso Design we'll be able to work with your general contractor, architect and designer to create the proper mix and procedure for your floor.

Diamond polished finish – This

finish creates the most beautiful and durable surfaces on concrete floors. The slab is grinded and polished with diamond equipped machines operated by our trained crew. Our diamond polished floors are unique and completely customized to our client expectations. From the pouring to the saw cutting of control joints, to the diamond refinishing every step is carefully planned and engineered to produce unmatched beauty and durability.



Control joints – These are grooves in the concrete slab (topping or structural) which create a point of weakness, allowing the cracks to form into the groove, therefore remaining unseen. On most interior slabs control joints are saw-cut with diamond blades after the pour. Many concrete installation company are not familiar with this techniques and often do not install joints of any kind at all, or they would use grooving tools like is done on standard outdoor concrete. This often creates issues when the floor is further refinished, most of all with diamond polished floors. Saw-cut joints can be backfilled with colored caulking or colored polyurea.

Cracking – The appearance of cracks on interior concrete is usually due to lack of control joints design. Even if the joints are properly designed and installed, hairline cracking can still happen. In this case they can be backfilled with colored caulking or other elastomeric products during the refinishing/polishing phase.

Integral Pigments – Whenever a specific coloration is desired, integral pigments can be added to the concrete mix at the plant. Davis Colors is the main manufacturer in the USA of integral pigments for concrete. A Davis color chart is available for our clients; we can also order 3" x 3" color chips directly from the manufacturer. Samples, chips and charts should not be intended as an exact representation of the actual finished concrete floor, but only as an instrument to determine the proper pigment to use. The final color will be determined by the interaction of the pigments with the specific concrete mix. Factors like aggregate size and provenance, substrate moisture, temperature and more can and most likely will affect the final result.

On site mockups – Whenever a specific tone is requested, we recommend the construction of on-site mock-ups. Most time the size will be 3'x3' or 4'x4'. The mock-ups should be used to preview different colors, finishes, sealers and other important aesthetical details. They should be constructed and maintained on site in conditions as similar as possible to the actual floor. In other words, if a mock up is built outdoor for an interior floor, after weeks or months of exposure to the outdoor elements the mock up will develop differences just because it is in a different location. Once again, mock ups are a representation of the actual floor and differences may happen.