

Minimal exposure polished concrete casting requirements

Also known as Cream Polish and burnished Concrete - post placement burnishing is the first step in a class A finish. The floor needs to be flat with a floor flatness of $F_F 70$. This floor will have 85%-95% cement fines with 5%-15% fine aggregate. The cause of the exposure is down to the floor flatness and effective troweling of all areas of the floor.

Key steps for a cream polish include;

- The surface should be power floated. (To achieve a surface as pore-free and level as possible, thorough power floating is required).
- The surface should be heavily troweled to obtain as smooth, dense and hard a surface as possible. "Burnished to black"
- Normally, the concrete surface should be water hardened under plastic sheeting for 5-7 days after casting, before it is time to start grinding and polishing.
- The surface must not be waterlogged when impregnating. (This is to enable the lithium silicate impregnation to penetrate and react with the concrete.)
- The floor surface needs to be flat. If the surface is not flat polishing without aggregate exposure may not be possible. You want a floor greater than $F_F 70$.

Important Note:

You cannot change the colour of the slab. The higher the finish of polish the lighter the slab will be in colour, however:

- hydration marks
- cold joints
- most chatter marks
- footprints and consequent low spots left by them;
- blowout holes from carpet smooth edge fixings.
- any rough grainy finishes ESPECIALLY around the edges, internal corners and open doorways of slabs where the concreter's helicopters cannot get to, and NO specialist care is taken to finish with hand tools to the same standard as the rest of the slab, CANNOT be rectified by polishing and will come out a completely different finish/colour to the rest of the slab.



PCCA Position Statement #7

Minimal Exposure Polished

Concrete - Class A

CASTING

For the floor to have a uniform appearance, the casting is of the greatest importance. (A poorly cast floor will be costly to grind, and even if the function of a polished floor can be achieved, the finish will be affected by uneven aggregate, cracks, etc.) The appearance of the finish is totally dependent on the concrete's appearance. Colour differences in the surface are to be expected. It is important to protect the slab during the building process from spills and staining as these cannot be removed.



www.pccaaustralia.com.au



Polished Concrete Council of Australia