



CONCRETE POLISHING COUNCIL

EXPOSED/POLISHED CONCRETE AGGREGATE EXPOSURE CHART

CLASS	NAME	SURFACE EXPOSURE, %
A	Cement Fines (Cream Finish)	85 – 95 % Cement Fines 5 – 15 % Fine Aggregate
B	Fine Aggregate (Salt and Pepper)	85 – 95 % Fine Aggregate 5 – 15 % Blend of Cement Fines and Coarse Aggregate
C	Full Aggregate Exposure (Coarse Aggregate)	80 – 90 % Full Aggregate 10 – 20 % Blend of Cement Fines and Fine Aggregate

■ Aggregate exposure class denotes the surface exposure after grinding and polishing process. The density, size and distribution of the aggregates at the surface is a result of the concrete mix design, and the placing and finishing of the concrete slab. The specified floor flatness (F_F and F_L) is an important consideration in selecting the appropriate aggregate exposure class.

■ The percentages listed are only a guide, this is measured using a randomly placed 10' x 10' square. The purpose is to assist in understanding how placement issues can/have affected the final results. A surface evaluation shall be performed within a 10' x 10' square to see if the overall percentage of aggregate exposure conforms to the allowable percentage listed on class A, B or C profiles.

Illustrations of Differences in Class



Contact your Concrete Polishing Council (CPC) contractor or the CPC Hotline at (844) 923-4678 or by email at cpchotline@asconline.org with any questions.

■ This chart provides a visual representation of Class A,B, and C aggregate exposures. Significant color variations can occur between class profiles, as both fine and coarse aggregates have a dramatic effect on final color. A Class A profile, for example, may have a gray tone, then shift to brown hues when the surface paste is removed, exposing sands and/or aggregate. In addition, the polished concrete in your area may vary based on aggregate type, gradation, size and distribution. For these reasons a representative mock-up should always be provided for approval by your CPC certified polishing contractor. Mock-up samples should be done on the actual slab to be polished, rather than off site.

■ Generally, floors specified with a high DOI requirement, have excessive pore structure (including sand pop-out, micro cracking, pin holing, air voids, etc.), or are being processed to a specified aggregate exposure level, will require grouting to meet specified properties. Grouting materials are to fill floor micro surface defects or imperfections such that a more uniform surface refinement can be achieved. A more uniform surface profile can substantially improve the floor's DOI and overall clarity. Grout application is typically performed at a time when the next grit step is the least aggressive required to fully remove all excess grout from the slab surface. The size and weight of grinding equipment, as well as tooling, will dictate the best timing for application. With a heavy, large planetary or rotary grinder, grouting is typically performed prior to the transitional/hybrid diamond step. With a lighter, smaller platform grinder, grouting is typically performed before the last metal bond diamond step. Polished concrete mock-ups should include a grout application so that optimum placement timing can be evaluated for a given floor, machine, and diamond combination.