

## Understanding Polished Concrete

Currently, the industry breaks down the process of concrete polishing into grinding and polishing. Some within the industry simply use the word "polishing" for the entire process. The process of polishing concrete consists of three consecutive categories: grinding, honing and polishing.

Each category is then broken down into multiple steps, consisting of consecutively finer grit abrasives. During this process a densifier or hardener is applied that is absorbed into the concrete creating a chemical reaction that makes the concrete more dense and hard.

### Steps Of Concrete Polishing – True Polished Concrete

Ground concrete is the lowest category of steps of a processed concrete surface. Any grit abrasive from approximately a 50-grit resin and below is considered a grinding step. A ground concrete surface has a flat appearance with no or very slight reflection and may at times have a low sheen.☐

Honed concrete is the next category of steps above ground concrete in the processing system. Any grit abrasive from approximately a 100-grit resin to a 400-grit resin is considered a honing step. A honed concrete surface has a matte appearance and/or slight clarity of reflection that has a low, medium or high sheen.☐

Polished concrete is the highest category of steps of processed concrete.

Any grit abrasive from approximately an 800-grit resin and above, typically to 1,500 or 3,000 grit, is considered a polishing step. A polished concrete surface has clarity of reflection like a mirror and has a glass-like finish.☐

### **Variables**

The process of grinding, honing and polishing concrete is more technical than most realize. There are many pre-existing variables that can affect the end results of the process performed. Some of these variables are within the contractor's control, such as the quality of your equipment and diamond abrasives and the motion and speed at which you operate your equipment. At InStyle Stone & Concrete we use only the highest grade and quality tooling, powerful 3phase machinery and top quality sealers and chemicals.

Other variables are beyond a contractor's control, such as levelness and flatness of the floor or the concrete mix design used. Knowing how to tackle

these variables is the difference between a craftsman who is detailed and results-oriented and a contractor who simply goes through the motions.

The most significant variable in a polishing job is the concrete itself. Residential concrete is generally a low MPA of around 25 (2,500 psi ) that has been hand troweled. Lower MPA concrete does not polish as well because the surface is not as dense and hand troweling leaves the surface with lots of highs and lows. On the other hand, commercial concrete is a higher concrete mix of 32 and above (3,500 psi and up) that is machine troweled in the open areas and hand troweled in the corners and tight areas. Higher MPA concrete polishes better because it is denser and the surface has fewer highs and lows.

A slab that is intended for polished concrete should be made from a polishing-friendly mix design and a floor flatness Class A slab should be achieved by the concrete contractor. This will result in a better polishing result and a lower cost to finish the floor.

True Polished Concrete typically has no coatings applied to the surface. The gloss or sheen is produced via the grinding and polishing process with each step to a higher grit removing the scratches from the previous grind.

True Polished Concrete (TPC), is a modern, durable, low maintenance flooring option and one which is suitable for commercial office, retail business, warehousing & logistics facilities, property developers, architects, interior designers & residential property owners.