THE ASHFORD FORMULA AND SHAKE-ON HARDENERS

Often, special mineral or metallic aggregates are applied to the surface of concrete slabs. They are used to harden the slab surface and increase wear resistance. These aggregates usually consist of quartz, trap rock, or metal filings. They are dried and then premixed with portland cement, usually in a ratio of one part cement for every two parts of aggregate. This aggregate-cement mixture is then sold as the shake-on hardener.

Shake-on hardeners are usually shaken onto the surface after the freshly placed slab has been floated. They are embedded into the slab surface, usually with a wooden bull float. Timing is critical. If the hardener is applied too early, the aggregate can embed itself too deeply. If applied too late, the moisture needed to incorporate the hardener into the slab may not be present. Usually, the first 2/3 of the hardener material is applied first. After it is floated, the remaining 1/3 of the material is added. It too, is floated. There needs to be enough moisture on the slab surface to properly wet out the portland cement premixed with the aggregate in the hardener. The floor surface is then troweled. Some newer hardeners are applied in one easy application, and then troweled.

The most commonly asked questions about hardeners are:

(Q) Will a concrete floor treated only with The Ashford Formula eventually become as hard as a floor treated only with a shake-on?

(A) *No. Shake-on hardeners produce floor surfaces that exceed the normal hardness figures of The Ashford Formula. However, shake-on hardeners are expensive to buy and expensive to apply. For far less money, The Ashford Formula produces a solid, hard, abrasion resistant surface that is excellent for most applications. In addition, while a shake-on product will only harden the floor, The Ashford Formula will also seal it and dustproof it.*

(Q) Can The Ashford Formula be used in conjunction with a shake-on hardener?

(A) *Absolutely. However, it is important to remember that The Ashford Formula has no effect on the quartz, trap-rock, or metal filings. It reacts only with the portland cement that forms the paste or matrix around the aggregate. In*

effect, The Ashford Formula actually hardens the cement portion of the hardener.

(Q) Where are shake-on hardeners commonly used?

(A) *In any application where the specifier is concerned primarily about abrasion and wear-resistance. Shake-on hardeners can be used in warehouses, manufacturing plants, waste-recycling facilities, or other facilities where heavy, grating loads are anticipated.*

(Q) How are dry-shake applications cured, and what is the recommended way to use The Ashford Formula?

(A) *After the dry-shake has been floated into the surface, the slab must obviously be cured. The best method of curing a floor treated with a dry-shake hardener is the wet or moist cure. However, even a wet cure may not eliminate surface crazing. This is because the dry-shake surface is so dense that the floor is prone to craze and crack. Our strong recommendation is to use The Ashford Formula in conjunction with a wet cure. It is best to apply The Ashford Formula first, ensuring a proper flush and squeegee, followed by the wet cure. In this way, The Ashford Formula chemically strengthens the floor surface before the wet cure even begins, virtually eliminating the cracks.*