Perform with Precision

DAYTON SUPERIOR

Guide to Liquid Densifiers

A concrete densifier is a chemical applied to a concrete surface in order to fill pores, increasing surface density.

Chemical densifiers are used on polished and non-polished concrete to reduce dusting and wear; on polished concrete surfaces densifiers help concrete take a better polish and make the surface less permeable to liquids so the slab does not require sealing.

Dayton Superior Has Three Variations of Floor Densifiers

Sodium silicates

- Densifier Concentrate J12
- Densifier J13

Silicate/Siliconate

- Sure Hard J17

Lithium

- Pentra-Hard Densifier

Silicates react with the free lime (calcium hydroxide) in the concrete to produce the strength producing gel called calcium silicate hydrate (CSH).

The development of free lime is a by-product of hydration (the chemical reaction between cement and water). Sodium Silicates and Silicate/Siliconates are primarily designed and will provide a higher level of performance when applied to concrete that has aged a minimum of 7 days.

Pentra-Hard Densifier because of its unique nano-lithium chemistry can be applied to new or older concrete.

All Dayton Superior Densifiers are VOC compliant and may contribute to LEEDS credits.

Densifier Concentrate J12

- Concentrated solution with a fugitive dye
- Will not discolor
- Non-membrane forming
- Treated surface will accept most any floor finish

Densifier J13

- Cost-effective
- Will not discolor
- Non-membrane forming
- Treated surface will accept most any floor finish

Sure Hard J17

- Colorless, odorless
- Contains siliconates to impart water repellency
- Quick turnaround, as the floor can be used as soon as it is dry
- On new concrete surfaces, wait a minimum of 7 days before applying
- Will not accept most any floor finish i.e. mastic or epoxy

Pentra-Hard Densifier

- Easy application, no rinsing required
- Can be applied to new or old concrete
- Does not contribute to surface ASR
- Resists stains and dusting colorless, odorless

These products are not membrane forming and therefore cannot meet the requirements of ASTM C-309 or ACI 308 as a curing membrane. Even if a membrane forming compound was not a prerequisite to meet C-309, the moisture retention of any of these products is much less than a membrane forming curing compound meeting the ASTM C-309 standard.