

LITHIUM SILICATE

LITHIUM SILICATE is widely recognized as the best treatment for expanding the service life of concrete by improving its durability. And although LITHIUM SILICATE is primarily used in commercial and industrial applications (warehouse floors), they are now increasingly being used in residential applications (driveways) to provide long-term protection against surface deterioration and water penetration. LITHIUM SILICATE is also widely being used for densification of granite and marbles. LITHIUM SILICATE is based on a chemical solution that increases the wear surface strength of industrial concrete floors subjected to pedestrian and vehicular traffic. The Densifier penetrates concrete surface to seal, densify, harden and waterproof them. Densified Industrial floors last longer, cost less to maintain, are safe to use and resist dusting after application. It is VOC compliant, odorless, environmentally safe and simple to apply.

PROCESS

LITHIUM SILICATE treatment deeply penetrates and reacts with the concrete to produce insoluble mass within the concrete pores. Treated surfaces will densify the concrete substrate into a hardened, chemically cured, homogeneous, concrete mass that resists abrasion and reduces oil and water penetration. The deeply penetrating chemical action leaves no film and will not alter the natural non slip texture of the concrete floor.

ADVANTAGES

- LITHIUM SILICATE is Non-Expansive:**
Traditional hardeners can form an expansive alkali-silica gel in concrete that absorbs moisture and expands, and then dries out and contracts. This is why even properly cured concrete can sometimes develop crazing or map cracking after the application of those products. The reaction of LITHIUM SILICATE in concrete is non-expansive and therefore will not contribute to crazing, map cracking, or Alkali-Silica Reaction (ASR).
- Less Water Solubility:**
LITHIUM SILICATE do not absorb water as is the case with most traditional hardeners. The resulting structure is more water resistant with easier maintenance.
- Deeper Penetration:**
LITHIUM SILICATE ions are smaller than ions of traditional hardeners so they penetrate deeper into the concrete substrate. Deeper penetration will ensure better performance.
- More Even Reactivity:**
LITHIUM SILICATE reacts more evenly throughout the concrete. Traditional hardeners have a tendency to react more violently and unevenly sometimes leaving clumps of reacted and un-reacted calcium scattered throughout and across the surface. The result is a more even application without noticeable residue.
- Will Not Effloresce:**
The potential of hardeners to form efflorescence is highest with traditional hardeners, and lowest with LITHIUM SILICATE. Efflorescence is a white crystal powder that can appear on the surface of concrete when temperatures are low and moisture content is high.

BENEFITS

Excellent Penetration LITHIUM SILICATE formulation is highly reactive, which achieves a much greater penetration into the floor surface and triggers a much faster and more complete reaction with the concrete than traditional hardeners.

Durability LITHIUM SILICATE will outlast as it contains chemicals heavy in silica, which reacts with calcium hydroxide in concrete, densifies and seals micro pores in the top layer of the concrete, strengthens and hardens the surface, creating a permanent impregnation of the concrete floor. LITHIUM SILICATE is breathable and UV stable. Will not yellow, discolor, peel or flake.

Greater Abrasion Resistance Maximum Hardening will effectively and significantly increase abrasion resistance in comparison to traditional hardeners.

BENEFITS

Eliminates Dusting In ordinary concrete, tiny particles of dust are pushed to the surface through an upward force called hydrostatic pressure, resulting in efflorescence, which leads to dusting. LITHIUM SILICATE eliminates efflorescence and prevents dusting making concrete easy to maintain.

Improves Stain Resistance By densifying and sealing the surface, it transforms a porous concrete floor into a floor that is dense enough to repel water, oil, and other contaminants, preventing them from penetrating the surface

Reduces or Eliminates ASR (Alkali Silicate Reaction) due to high concentrations of sodium and potassium salts in traditional hardeners, contribute to surface crazing and surface ASR, which are not present in LITHIUM SILICATE and will not absorb water or contribute to floor sweating.

Reduces Tire Marks The rough, uneven texture of natural concrete causes tires to abrade, adding to their wear. A concrete floor treated with LITHIUM SILICATE combined with grinding and polishing technique make the entire surface smooth, preventing this abrasion and leaving minimum tire marks on the floor.

Improves Condition of Old Floors As concrete ages, surface stress, delaminating, curled cold joints, and other problems can arise. LITHIUM SILICATE application, combined with customized grinding and polishing technique, can remove the top surface layer of the old concrete and strengthen the floor, increasing its impact and abrasion resistance.

Little or No Production "Down Time" Cures quickly. Floor can be put in service immediately after the application process is complete. Due to the cleanliness of the process and the lack of toxic or hazardous chemicals, floors can often be serviced while the plant is in full production.

Cost-Effective LITHIUM SILICATE improves performance, appearance and light reflectance of new and old floors. It will reduce energy bills. A treated floor will lower maintenance costs significantly.

PACKING :

200 Ltrs. HDPE Barrel

SHELF LIFE & STORAGE

Lithium Silicate has a shelf life of 12 months from date of manufacture when kept at a temperature between 5°C to 45°C and store in the original, unopened bags. All material shall be stored under cover in a manner that will prevent damage preferable on pallets and protected from excessive heat and moisture. Do not freeze.

QUALITY ASSURANCE

AMBICA SPECIALITY CHEMICALS is a firm of Assessed Capability. The company's quality system conforms to ISO 9001:2015.

HEALTH & SAFETY

Lithium Silicate is no-toxic and non-flammable. Avoid inhalation of dust during mixing and wear safety glasses, dust mask and gloves. If skin contact occurs wash thoroughly with clean water. Should eye contact occur rinse immediately with plenty of clean water and seek medical advice. Full health and safety data are given in Product Safety Data Sheet.