



**asg** chemie



## FLOORING TREATMENTS

**Hardscape chemistries for concrete, micro-toppings, terrazzo, stone and ceramic tile.**

Raw materials range from reactive ingredients silicates, colloidal silica sols, silanes, siliconates, silicon emulsions, and polymer chemistries - all commonly used in formulating densification, finishing, polishing, curing, protecting and maintaining flooring surfaces.

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## SILICATES

**LITHIUM SILICATES****Lithium Silicate (LS)45**

Lithium Silicate (LS)45 is an aqueous polysilicate solution with a molar ratio of 4.5 (ranging 4.35-5.0) that has a high concentration of lithium. The reactive silicate forms a stable, high ratio, low viscosity solution that results in lower levels of water in coatings and can dramatically improve film formation, water resistance, abrasion, hardness and bonding properties for many applications, including concrete surface treatments, gloss and wear resistant coating, specialty paints, coatings and stains. Additionally, lithium silicate is added to sodium and / or potassium silicates as a blend to improve the adhesion to a wide variety of substrates as well substantially increases the hardness of colloidal based chemistries, when formulated into finishing and curing treatments.

**Lithium Silicate HYBRID (LPS)39**

Lithium Silicate Hybrid (LPS)39 is an aqueous lithium potassium polysilicate solution with a molar ratio of 3.9 (ranging 3.8-4.0). Ideal for many applications including; concrete surface treatments, specialty paints and coatings, impregnators, densifiers, stains and polishing aids.

**Potassium Silicate**

Potassium silicate is used as an reactive silicate for floor densification for concrete and mineral based paints, coatings, pore and crack fillers and dustproofing. Potassium Silicate is often used in mixed silicates - combination of lithium, potassium and sodium silicates. Being a bigger molecule compared to lithium silicate, penetration is lower, hence more suitable for porous surfaces.

Available Grades: PS1(20%), PS1 HS ( ), PS2 (20.6%), PS3 (24%), PS4(26.4%), PS5(27%)

## COLLOIDAL SILICAS / NANO SOLS

The Colloidal Silica range are available in a multitude of solids %, pH and other controllable variables offering flexibility to the user for creating dust free, highly impermeable systems as well as enhanced coefficient of friction. Fast reacting nano particles penetrate concrete floors reducing permeability without discoloring, causing efflorescence or inducing ASR. Compatible with low lime decorative overlay products, and self-levelling flooring treatments, finishing and curing aids offering improved abrasion resistance, color vibrancy, durability and sheen.

Available Grades: (NS6)15% , (NS6)15% (NS7)15%, (NS7)15% C, (NS8)20%, (NS8)20%, (NS20)40%, (NS20)40%

## HARDENING AGENT / C-S-H PROMOTER

**Strontium Nitrate (SRNO3)2**

Strontium Nitrate Hardening Agent & Promoter is an aqueous non-alkali, non silica, ionic chemical solution which enhances and promotes C-S-H reactions. The deep penetrating, initiating chemistry can be formulated to any pH as well as compatible with silanes, siloxanes, surfactants and/or other additives. The unique hardening properties improve abrasion, stain and wear resistance with the reduction water absorption on porous surfaces. Used as a topical treatment such as primer, curing agent, hardener / densifier and finishing aid for industrial and polished surfaces.

## SILICONATES

**Potassium Methylsiliconates**

Potassium methylsiliconate is a waterproofing agent added to paints, coatings and surface treatments such as densifiers, sealers and protective coatings. It is ideal for use as a water repellent on masonry surfaces that are porous Available in two concentrations 40% and 50% solutions.

## SILANES

**Triethoxyoctylsilane (DP/100)**

Triethoxyoctylsilane, also known as n-octyltriethoxysilane, is an alkyl silane used as a waterproofing agent in paints, coatings and floor surface treatments. It is ideal for use as a penetrating surface water repellent for chloride ion protection and stain resistance.

**Glycidoxypropyltrimethoxysilane****Silane-560 (Gamma- Methacryloxypropyltrimethoxysilane)**

Silane-560 is an epoxy functional silane coupling agent composed of Gamma- Glycidoxypropyltrimethoxysilane. Silane-560 is used to improve adhesion, strength and water repellency of glass-reinforced and mineral-filled thermosetting and thermoplastic coatings used in the flooring industry. It is suitable for epoxy, acrylic and polyurethane resins.

**Silane-570 (Gamma- Methacryloxypropyltrimethoxysilane)**

Silane-570 is a silane coupling agent composed of Gamma- Methacryloxypropyltrimethoxysilane. Silane-570 is used to improve adhesion, strength and water repellency of glass-reinforced and mineral-filled thermosetting coatings. It is suitable for acrylic, polyester and polyurethane resins floor coatings.

## SPECIALTY LITHIUM BASED PRODUCTS TREATMENTS

### **Micro-Dur™ Hybrid Polymer Dispersion**

Micro-Dur™ Hybrid Polymer Dispersion is a specialty organic-inorganic hybrid micro-dispersion composed of nano-silica, lithium silicate and silicon in a resin matrix. The specifically engineered composition and self-cross-linking mechanism provides superior hardness, durability, adhesion, chemical and stain resistance to waterborne clear topcoats, varnishes, and stains.

LiNO3

#### **Lithium Nitrate**

##### **Admixture (30% solution)**

Lithium Nitrate Admixture (30% solution) is a concrete admixture designed for the prevention and control of alkali-silica reactivity. A cost effective method for improving durability, as well as allowing safe utilization of locally available aggregates and cement.

LiNO3

#### **Lithium Nitrate**

##### **ASR Mitigation Treatment (Solution)**

Lithium Nitrate ASR Mitigation Treatment (Solution) is a formulated proprietary solution which is used as a topically applied treatment to help in the remediation of concrete structures and infrastructures presently affected by ASR as a cost-effective way to impregnate concrete with lithium ions to help control cracking, pop-outs and costly repairs caused by ASR.

##### **Lithium Acetate (29% w/w solution)**

Lithium Acetate (29% w/w solution) used as an additive in the manufacture of industrial cleaners for neutralizing carbonated floors, as well as a highly effective de-icer that is non-corrosive to concrete and stabilizing additive for cleaners to help reduce alkalis.

#### **LITHMELT™ De-icer**

Extremely fast-acting hybrid (\*lithium / potassium acetate) de-icer for concrete driveways, sidewalks, ramps, steps, loading docks and decks. This industrial strength formula melts ice on contact as low as -80 degrees Fahrenheit (-62°C). No mess--will not track or leave residue like common deicers.

#### **Concentrated Lithium Based Cleaner / Restorer**

Cleans floors by cutting through dirt, grime and residue. This cleaner uses reactive lithium chemistries to harden, protect and restore gloss and durability.

## SPECIALTY CEMENTS

### **MICRO-CEMENTI™ (SC) Shrinkage Compensating**

CSA Expansive Type –

Through positive expansion, MICRO-CEMENTI™ (SC) reduces volume shrinkage in both the plastic and hardened phases of cement hydration. Product is suitable for use in non-shrink grouts, self-leveling floor screeds and prefabricated concrete.

### **Microcementi™ Engineered CSA Cement**

Microcementi™ CSA Engineered CSA Cement is a hydraulic binder that can be used as a standalone, or in combination with OPC and gypsum. Due to its lighter color than CAC or traditional CSA, Microcementi™ CSA engineered CSA Cement offers versatility in decorative applications. Ultra rapid hardening & strength gain, low permeability and simplicity in formulation are key benefits.



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Bulk Chemicals and Specialty Performance Materials

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