CHEMPORT
Specialty Chemical Experts



CONCRETE ADMIXTURES

We supply both local admixture companies and the major multinational concrete admixture manufacturers throughout Asia Pacific, North America, and Europe.

Our expansive range of raw materials offers a proven platform for the formulation and engineering of chemistries for achieving heat of hydration, accelerating or retarding setting times, workability, water reduction, dispersion and air-entrainment, impermeability and durability factors.

Chemport • Bulk Chemicals and Specialty Performance Materials • www.chemport.com.au • Suite 2.08, 32 Delhi Road, Macquarie Park, NSW, 2113, Australia • **Main** : +61 2 9188 9303 • **Email** : sales@chemport.com.au

RETARDERS

Liquid Glucose
Available as a 60% concentrated solids solution with pre-blended biocides, liquid glucose offers retardation as well as moderate levels of plasticization. Liquid glucose is extremely well suited to high temperature environments.

Sodium Gluconate
Sodium Gluconate works by delaying both the initial and final setting time of wet concrete allowing for longer working time. Relatively small dosage levels are required and minimal impacts on the strength of concrete are observed. Sodium gluconate also has the added advantage of water reduction and plasticity.

Phosphonate Retarders
Phosphonate Retarders are the next generation in cement admixture technology. Highly effective for long periods of time, phosphonate retarders are also predictable due to their linear relationship between setting time and dosage rate. There are a range of chemistries available including HEDP, ATMP, PBTC and more.

Citric Acid
Citric Acid is a weak organic acid, found naturally in many types of fruit. In the concrete admixture industry, citric acid works as a general-purpose retarder and can also improve the flow and pumpability of ready-mix concrete.

ACCELERATORS

Amorphous Aluminium Hydroxide
Amorphous Aluminium Hydroxide is a highly reactive form of aluminium hydroxide designed for use in advanced cementitious and concrete admixture formulations. Due to its high surface area and amorphous structure, it can improve early-stage reactivity, assist with setting control, and enhance particle dispersion within drymix and specialty binder systems. It is commonly used in high-performance repair mortars, rapid-setting formulations, and specialty construction applications requiring improved consistency, stability, and formulation efficiency.

Aluminium Trihydrate (ATH)
Aluminium Trihydrate (ATH) is a versatile inorganic additive widely used in construction and cementitious systems as a flame retardant, filler, and rheology modifier. In concrete admixture and drymix applications, ATH can contribute to improved fire resistance, enhanced dimensional stability, and controlled setting behaviour while also assisting with formulation consistency and workability. ATH is commonly incorporated into repair mortars, grouts, coatings, and specialty cement systems where thermal stability and filler performance are required.

Aluminium Sulphate
Aluminium Sulphate is an alkali-free additive that is used as the primary component of shotcrete accelerating admixtures. Other benefits include fast setting, high early strengths and low permeability of concrete. Aluminium sulphate is a cost-effective and reliable solution for improving the quality and efficiency of concrete.

Calcium Nitrate (Ammonia Free)
Available as both a water soluble crystal and a 50% solution, calcium nitrate is a chloride-free additive that does not cause corrosion to reinforcement steel. Calcium nitrate can effectively speed up the setting and hardening of concrete, especially at low temperatures.

Oxalic Acid
Oxalic Acid acts both as an accelerator by reducing the setting and hardening time of concrete, as well as offering mild resistance to acid attacks.

Sodium Aluminate
Sodium Aluminate is a flowable white powder that is readily dissolvable in water, with a high concentration of aluminium oxide. In cement applications, sodium aluminate is an effective accelerator and strength enhancer, commonly used to accelerate shotcrete. Sodium aluminate also has the added advantage of working well in cold climates and when frost is present.

Sodium Thiocyanate
Sodium Thiocyanate is an important concrete admixture, which improves initial strength and set hardening. More recently, sodium thiocyanate is also being used in cement grinding aids as a strength promoter. Typically sold as a 50% solution, a powder is also available.

Formic Acid
Formic Acid functions primarily as a set accelerator in concrete admixtures, promoting faster hydration and early strength development, particularly in cooler conditions. It also offers a dual benefit by acting as a mild corrosion inhibitor, helping to protect steel reinforcement from chloride-induced corrosion.

REACTIVE BINDERS, NANO SILICA PROMOTERS FOR CSH REACTIONS

COLLOIDAL-SIL™

Fine aqueous silica dispersions that promote calcium silicate hydrate (C-S-H) formation in cementitious systems. Depending on the grade and formulation, they can improve early strength development, setting performance, pumpability, bleed control and resistance to permeability.

Available Grades:
(NS8)30, (NS14)30, (NS14)40, (NSE10)30, 1030, NS Series (1416, 2930, 3940), (NS6)15, (NS7)15, (NS8)20, (NS815)30, (NS15)30, (NS15)30 LA, (NS20)40 LA.

Strontium Nitrate

Strontium Nitrate 30% is an aqueous non-alkali, non-silica ionic chemical solution which enhances and promotes CSH reactions.

CORROSION INHIBITORS

Calcium Nitrite

Calcium Nitrite is a chloride-free, low-temperature accelerator and a highly effective corrosion inhibitor. Calcium nitrite is recommended for marine environments as well as for large concrete pours where protecting steel reinforcement is critical.

Lith™ $LiNO_3$ Admixture

Lith™ $LiNO_3$ Admixture is a lithium nitrate-based liquid admixture designed for use in concrete for the prevention and control of alkali-silica reaction (ASR).

WATERPROOFING

SILANOX™ OTES

A high-performance silane-based waterproofing additive designed for concrete, cement, and mineral based systems. Provides deep penetration and long-lasting water repellency, reducing water absorption while maintaining substrate breathability. Enhances durability and weather resistance in construction materials.

SILANOX™ IBTES

SILANOX™ IBTES is a silane-based hydrophobic additive designed to improve the water resistance and durability of concrete and cementitious systems. It penetrates porous substrates to reduce water and chloride ingress while maintaining the natural appearance and breathability of the surface.

SILANOX™ 36E

Water-based silane/siloxane waterproofing emulsion designed for surface treatment of concrete, masonry, and silicate substrates. Provides excellent penetration, long term water repellency, and high hydrophobic performance for infrastructure and construction applications.

SILANOX™ 60E

Silane/siloxane composite emulsion designed for incorporation into cementitious systems as a waterproofing admixture or surface treatment. Provides excellent hydrophobic performance, low VOC content, and long-term water resistance in concrete and mortar applications.

WATER REDUCERS / PLASTICIZERS

Polycarboxylates – CONTROL™ PCE

CONTROL™ is a high-end superplasticiser based on the latest polycarboxylate technology. At extremely low addition rates, CONTROL™ offers high levels of water reduction and flow. CONTROL™ is recommended for high-performance concrete applications such as high-rise residential buildings, bridges, tunnels and other civil project applications.

Lignosulfonates - LIGNO-SIL™

LIGNO-SIL™ lignosulfonates are organic substances, being a natural polymer from the production of wood pulp using the sulfite process. In concrete applications, sodium lignosulfonate is a low-range water reducer with moderate retardation effects. Available as both a liquid and a powder.

Melamine Sulphonate

Melamine Sulphonate can reduce the water content of concrete by up to 40%, while still allowing for fluidity and workability. In addition, melamine sulphonate can also improve strength and durability of concrete by enhancing the dispersion of the cement particles.

Naphthalene Sulphonate

Naphthalene Sulphonates are widely used in building chemistry as a superplasticiser for their dispersing and wetting abilities. They come in different forms (calcium and sodium salt) and various levels of sodium sulphate content. Naphthalene sulphonate creates concrete that is more workable and fluid by using less water and more slump.

GRINDING AIDS

Diethanolisopropanolamine (DEIPA)
As an alkanol amine-based chemical additive, DEIPA improves both cement strength performance as well as the efficiency of the grinding process. Other benefits of DEIPA include improved workability and faster setting times.

Ethylene Glycols (MEG, DEG & TEG)
Ethylene glycols are organic compounds widely used in the cement grinding process to improve efficiency by helping to reduce energy consumption. Ethylene glycols work by coating the surface of the cement particles and preventing agglomeration and are effective at low dosages.

Triethanolamine (TEA)
Triethanolamine (TEA) is a component of cement grinding aid formulations and concrete additives. Besides helping the grinding process of the clinker, TEA also enhances the properties of cements at different stages of hydration and improves the performance of cements mixed with fly ash and slag.

Triisopropanolamine (TIPA)
TIPA is an amine-based chemical additive that is both a cement strength enhancer as well as an efficiency aid in the cement grinding process. TIPA also improves the flow of the cement particles and prevents the cement from clumping.

Diethanolamine (DEA 85% LFG)
DEA 85% LFG is a low-freeze diethanolamine grade suitable for use in cement and concrete additive formulations. It can be used as a component in cement grinding aids and functional admixture systems, supporting grinding efficiency and cement performance. Its low-freeze formulation provides improved handling and stability in cooler processing and storage conditions.

Diisopropanolamine (DIPA 85%)
Diisopropanolamine (DIPA 85%) is an alkanolamine-based additive used in cement grinding aid formulations. It can support grinding efficiency and cement performance when incorporated into appropriately designed formulations.

OTHER FUNCTIONAL ADDITIVES

Air-Entraining Agents
Air-entraining agents create a system of tiny and isolated air pockets that make concrete structures more durable against freezing and thawing cycles. We have a variety of air entraining agents that use fatty alcohol and other exclusive surface-active substances.

Sodium Nitrite
Sodium Nitrite is used as an anti-freezing agent in low-temperature concrete. Its addition also improves early strength development. Available in a 40% solution and a powder, both with and without anti-cake additives.

TIBP / TBP Defoamers
Triisobutyl Phosphate (TIBP) is a strong solvent that prevents and eliminates foam in water-based systems. It can also help to avoid freezing and foaming in aqueous solutions. TIBP can be used together with TIPA and DEIPA to make cement grinding aids (CGAs) that improve the grinding process and the properties of cement.

Styrene-Butadiene Latex
Polymer latex used to improve adhesion, flexibility, water resistance and durability in concrete and cementitious formulations. Suitable for polymer-modified mortars, repair systems, bonding applications and specialty construction formulations.

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