CHEMPORT
Specialty Chemical Experts



DRYMIX MORTAR

Performance additives for the Drymix Mortar Industry based on innovation, quality and ease-of-use. Servicing a wide range of product applications including facades, flooring, tiles, concrete reinforcement, industrial grouts, repair & patching mortars, decorative concrete, stucco and more.

Raw materials range from reactive binders, alternative cementitious materials, accelerators, retarders, functional fillers, fibres, viscosity modifying additives for established and emerging drymix applications.

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CEMENT BINDERS & SPECIALTY CEMENTS

Amorphous Calcium Aluminate Cements (ACA)
Amorphous Calcium Aluminate Cement (ACA) is a special cement used as an additive in conjunction with Portland Cement to create very fast setting times and high early strengths in mortar & concrete. Strength can be achieved in just a few minutes. ACA is suited for repair concrete in critical infrastructure and highway projects. Chemport also supplies a range of suitable retarders to allow for adequate open times as the setting time is extremely fast.

Calcium Aluminate Cements (CAC)
CACs are a unique class of cement that offer high performance heat resistance as well as rapid hardening and high early strengths. CACs find use in a range of applications that require rapid hardening including self-levelling compounds & industrial grouts. CAC is also used in applications that require chemical and sulphate resistance such as sewage pipes & pump stations. A range of CACs are offered including 40, 50 and 70% Al_2O_3 materials.

MICROCEMENTI™ CSA Binder
MICROCEMENTI™ CSA Binder is a calcium sulfoaluminate binder for formulated cementitious systems requiring rapid strength development and controlled dimensional performance. Potential applications include grouts, repair mortars and precast products. Setting and expansion behaviour should be optimised through binder selection and formulation trials.

MICROCEMENTI™ Engineered CSA Cement
MICROCEMENTI™ 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 colour 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.

MICROCEMENTI™ (SC) Shrinkage Compensating
CSA Expansive Type – Through positive expansion, MICROCEMENTI™ (SC) reduces volume shrinkage in both the plastic and hardened phases of cement hydration. Product is suitable for use in non-shrink grouts, self-levelling floor screeds and prefabricated concrete.

MICROCEMENTI™ QHA-200
MICROCEMENTI™ QHA-200 is a high-performance quick hardening admixture developed for use in cementitious systems. It provides rapid setting and early strength development, while improving crack resistance through controlled expansion.

Silica Fume (Densified & Undensified)
Silica Fume (Densified & Undensified) – A highly reactive, amorphous silica used as a supplementary cementitious material (SCM) and pozzolan to enhance concrete and mortar performance. It improves density, reduces permeability, and increases strength, while refining pore structure for better chemical, sulphate, and ASR resistance. Suitable for high-performance and specialty applications, silica fume delivers exceptional durability, abrasion resistance, and long-term strength development.

Calcium Sulphate / Plaster
Anhydrite (calcium sulphate anhydrous)
The anhydrous form of calcium sulphate, anhydrite has the chemical formula $CaSO_4$. Found naturally, as well as being a co-product of a variety of industrial applications including flue gas desulphurisation and from the production of hydrofluoric acid. Anhydrite is suitable for a variety of applications including fast setting grouts, self-levelling floor compounds and rapid setting cementitious systems.

Calcium Sulphate Hemihydrate
More commonly known as Plaster of Paris, calcium sulphate hemihydrate has the chemical formula $CaSO_4 \cdot ½H_2O$. Calcium sulphate hemihydrate can be used as a filler in paints, stucco & cementitious products. The amount of calcium sulphate added can influence the hydration, rheology, setting and strength in cementitious materials.

CAC80 – Calcium Aluminate Cement
High-alumina hydraulic binder providing high hydration activity, early strength development, and reliable performance for specialised cementitious and drymix formulations.

SET RETARDERS

Citric Acid
Citric acid is a weak organic acid, found naturally in many types of fruit. In the Drymix Industry, citric acid works as a general purpose retarder, recommended for use in gypsum, OPC and calcium aluminate-based systems. Citric acid can also improve the flow and pumpability of preblended cementitious products.

Phosphonate Retarders
The use of phosphonic based chemistries as a retarder in concrete are relatively new, however they can offer some specific advantages. Phosphonate based retarders can outperform other acids at higher temperatures, as well as allowing for longer periods of retardation. Set times can be controlled more precisely, as the relationship between dosage rate and retardation is linear. A wide variety of chemistries are available in powder form, for each application Chemport can recommend the correct additive or a blend of multiple additives.

Tartaric Acid
Tartaric acid is a strong retarder in both cement and gypsum-based systems. When tartaric acid reacts with the mineral phases of the cement, calcium tartrate hydrate is formed, covering the cement particles, thus blocking the hydration. The L-(+)-tartaric acid grade containing an anticaking agent, is highly soluble and free flowing, allowing for easy dispersion in small dosages throughout the finished product.

Trisodium Citrate Dihydrate
Trisodium citrate dihydrate is a set-control additive for selected cementitious and gypsum-based formulations. It can help adjust setting behaviour and working time. Performance depends on binder chemistry and dosage, so formulation trials are recommended.

Rochelle Salt (Potassium Sodium Tartrate)
Rochelle Salt (Potassium Sodium Tartrate) functions as a mild set retarder and stabiliser in cementing systems. Its controlled solubility and buffering action help regulate hydration rates and extend workable time under high-temperature conditions. Non-toxic and easy to handle, it provides reliable performance in environmentally sensitive formulations.

ACCELERATORS

Aluminium Sulphate (alum)
Commonly known for its use as a coagulant in water treatment, aluminium sulphate is also an important additive in cement. Aluminium sulphate powder can improve setting time, as well as early flexural and compressive strengths. Alum is recommended for use in post fix formulations where early strength is critical.

Calcium Formate
Calcium formate can accelerate hydration of tricalcium silicate in cement and increase the early strength of the cement mortar, as well as increasing cement hardness. Calcium formate is a viable non-chloride alternative for cold weather and low humidity conditions.

LITH™ Lithium Carbonate
LITH™ Li_2CO_3 Used in a variety of applications including as an accelerator in high alumina cement systems for manufacture of self-levelling flooring compounds, ceramic tile adhesives, rapid setting grouts and repair mortars. Available grades include Superfine (median particle size 30 micron) and Ultrafine (median particle size 6–10 microns).

LITH™ Lithium Sulphate
A more soluble form of lithium, LITH™ Lithium Sulphate is available in a unique micro-mist form that is free flowing with a narrow size distribution. Used in a variety of applications including an accelerator in high alumina cement systems for manufacture of self-levelling flooring compounds, ceramic tile adhesives, rapid setting grouts and repair mortars.

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.

Aluminium Hydroxide
Aluminium hydroxide is a mineral filler used in selected formulations requiring flame-retardant functionality. Grade selection and addition rate should be assessed against the required processing and finished-product properties.

WATER REPELLENCY ADDITIVES

Magnesium Stearate
Magnesium stearate is a hydrophobic additive used to impart water repellency and reduced capillary absorption in cementitious and drymix products. It improves powder flow and dispersion while enhancing surface smoothness and durability of mortars, renders, and plasters. Its fine particle structure ensures uniform distribution and long-lasting water resistance in finished materials.

SILANOX™ H82
SILANOX™ H82 is designed to significantly reduce water absorption in cement-based formulations, enhancing resistance to moisture ingress and supporting long-term durability. When incorporated into drymix mortars, it lowers capillary water uptake while maintaining compatibility with standard cement additives and formulation components.

WATER REDUCERS / SUPERPLASTICISERS

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 %. Naphthalene sulphonate creates concrete that is more workable and fluid by using less water and more slump.

Melamine Sulphonate
A superplasticiser in cement and gypsum based materials, melamine sulphonate allows for high flow and water reduction. Suitable for use in pumpable grouts, self levelling underlayments, repair mortars and tile adhesives. Due to its light colour, melamine sulphonate can be used in white and coloured formulations.

CONTROL™ PCE Powder
CONTROL™ PCE is a high end superplasticiser based on the latest polycarboxylate technology. At extremely low addition rates, CONTROL™ PCE offers high levels of water reduction and flow. CONTROL™ PCE is recommended for high-performance concrete applications such as floor screeds, non-shrink grouts and feather finish materials.

MELAFLOW™ M200 & M400
MELAFLOW™ is a high-performance range of sulphonated melamine superplasticisers in spray-dried powder form. Designed for drymix mortar systems, it provides superior water reduction, excellent cement dispersion, and improved early strength while ensuring reliable performance across diverse binder systems.

SHRINKAGE REDUCING ADMIXTURES

SRA-200
SRA-200 is a shrinkage-reducing additive for compatible cementitious and drymix formulations. It helps reduce drying shrinkage and the associated risk of cracking. Addition rates and effects on workability, setting and strength should be assessed through formulation trials.

RHEOLOGY ADDITIVES

METHOD™ Cellulose Ethers (MC, HEC, HPMC)
METHOD™ Cellulose Ethers are the preferred option in drymix mortar applications. The main function of cellulose ethers are to provide sufficient water retention so the cement can set and develop strength before it dries out. METHOD™ Cellulose Ethers also improve the workability, bonding strength and durability of a wide variety of drymix products including plasters, coatings, self-levelling compounds and putties.

SILANOX™ Fumed Silica
Fumed silica, also known as pyrogenic silica, is a high-purity, ultrafine silica used as a rheology modifier in drymix and cementitious formulations. It provides thixotropy, anti-settling and anti-sagging properties, helping improve consistency, stability and application performance. Hydrophilic and hydrophobic grades are available for different formulation requirements.

Polyvinyl Alcohol (PVOH, PVA)
PVOH is a versatile polymer that can easily dissolve in water, and when added to a cement slurry it enhances the adhesion properties. PVOH also improves the fluidity of cement mortars at relatively low addition rates. A wide range of PVOH grades are available, with varying degrees of viscosity, molecular weights and rates of polymerization.

Diutan Gum
Diutan gum is a rheology modifier for cementitious and drymix formulations. It helps maintain particle suspension, reduce bleeding and segregation, and improve mix stability. Suitable applications include flowable mortars, grouts and self-levelling compounds, with dosage optimised through formulation trials.

FILLERS

Glass Spheres
Produced from 100% post-consumer glass, Glass Spheres are tiny white inorganic granules of various diameters that are a type of thermal insulating material. In drymix applications, Glass Spheres are used as lightweight aggregates in plasters, lightweight concrete, lightweight panels and in polymer modified concrete. Glass Spheres are also finding an important role in 3D printing applications due to their low bulk density and high compressive strength.

Cenospheres
Cenospheres are hollow, inert spheres of silica and alumina. A natural by-product of coal power generation, cenospheres are lightweight materials added to concrete to make the structure lighter and stronger, as well as help to prevent cracking and improve durability. Due to their low specific gravity, spherical shape, narrow particle size distribution and high compressive strength, cenospheres are also used in critical applications such as oil well cementing.

Precipitated Silica S200
Precipitated Silica S200 is a high-purity, ultrafine silica suitable for use as a functional additive in drymix and cementitious formulations. Its high surface area and absorption capacity can support rheology control, formulation stability and consistent application performance in specialty mortar systems.

Perlite
Lightweight mineral filler used in drymix mortar formulations to reduce density and support thermal insulation and functional performance. Suitable for lightweight mortars, renders, plasters and specialty cementitious systems.

PERFORMANCE FIBRES

Alkali Resistant (AR) Glass Fibres
Manufactured from specialty glass with high concentrations of zirconia, AR Glass fibres have high tensile strength and modulus, are resistant to corrosion and are easily dispersed within the concrete mix. Suitable applications include glass fibre reinforced concrete (GFRC), concrete countertops and other decorative concrete applications requiring higher tensile strength.

Carbon Fibres
By incorporating carbon fibres in concrete, a new material is created that is strong and durable like concrete, but light and flexible like carbon fibre. This material can be used to build structures that are more innovative, efficient, and eco-friendly than traditional ones. The carbon fibres reinforce the concrete and make it more resistant to cracking and corrosion. This material also saves cement and steel, reducing the cost and carbon footprint of construction. Carbon fibre can also increase the service life of the concrete structure.

Polypropylene (PP) Fibres
Polypropylene Fibres are a type of synthetic fibre that when added to the concrete mix can improve performance and durability. Some of the benefits of polypropylene fibres include reduced shrinkage and cracking of concrete, increased strength and corrosion resistance. A variety of lengths and distributions are available, as well as in mesh and bundle form.

PAN Acrylic Fibres
PAN Acrylic Fibres are high-strength fibres used in drymix mortars to improve crack resistance and dimensional stability. They enhance tensile strength, impact resistance, and overall durability of the mortar. Their uniform dispersion ensures consistent performance and a smoother, more reliable finish.

PIGMENTS

Titanium Dioxide (Rutile)

The rutile form of titanium dioxide is a white powder that serves as a pigment and colourant. It is very durable and can withstand harsh chemical environments. TiO_2 Rutile enhances the appearance of concrete products, paints, and coatings by making them more white, bright, and opaque.

Iron Oxide Pigments
High-performance inorganic pigments designed for colouring cementitious systems including concrete, mortar, render and drymix formulations. Chemport offers a full range of synthetic iron oxides delivering excellent UV stability, alkali resistance and long-term colour consistency in demanding construction environments.

Available Colours: Red, Yellow, Black, Orange, Brown, Green

E-GLASS

Glass Fibres – Chopped Strand
Glass Fibres – Chopped Strand are high-strength reinforcements for drymix mortars, enhancing crack resistance and durability. They improve tensile strength and impact resistance, ensuring long-lasting performance. Their uniform length and dispersion make them easy to mix and integrate into mortar formulations.

AIR-ENTRAINING ADDITIVES

Alpha Olefin Sulphonate (AOS)
Alpha Olefin Sulphonate (AOS) is an anionic surfactant used as a foaming agent in cementitious formulations. It is designed to generate and stabilise fine, uniform foam, enabling controlled air incorporation and density reduction in lightweight and cellular cement systems.

BONDING ADDITIVES

ULTRABOND™
ULTRABOND™ is a high-performance adhesive additive for drymix mortars, improving bond strength and workability. It enhances cohesion, flexibility, and durability of mortar applications. Its compatibility with cement and other additives ensures consistent and reliable performance.

Re-Dispersible Polymers (RDP)
Re-dispersible polymer powders based on vinyl acetate-ethylene (VAE) offer excellent adhesion to a variety of substrates, water resistance and flexibility. Produced by spray-drying emulsions, RDPs are readily re-dispersible in water and retain the key properties of the original polymer dispersion. RDPs are an important component of tile adhesives, self-levelling compounds, gypsum-based products and mineral-based plasters.

OTHER FUNCTIONAL ADDITIVES

Soda Ash Light
High-purity sodium carbonate used as an alkalinity and pH-control additive in drymix and specialty cementitious formulations.

DEFOAMERS

Defoamer P128
Defoamer P128 is a non-silicone powder defoamer based on aliphatic compounds and an inorganic carrier. Suitable for drymix mortars, it provides rapid and persistent foam control. It can be incorporated directly into dry blends, with dosage determined through formulation trials.

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