CHEMPORT
Specialty Chemical Experts





DRYWALL / WALLBOARD, GYPSUM

Ingredients for Plaster, Render Finishes, Stucco, Putty, and Joint-Compounds

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

ACCELERATORS

Potassium Sulfate

Potassium sulfate speeds up the setting and hardening of the gypsum plaster, reducing the drying time and improving the strength and durability of the drywall. Potassium sulfate also acts as a fire retardant, as it releases water vapor when exposed to high temperatures, slowing down the combustion process. Potassium sulfate is a safe and effective additive that can enhance the performance and quality of various drywall products.

DEFOAMERS

Triisobutyl Phosphate (TIBP)

Triisobutyl phosphate (TIBP) is a clear, colorless liquid that is derived from isobutyl alcohol and phosphoric acid. It is used as a defoamer and penetrant in gypsum-based products, such as drywall and plaster. Triisobutyl phosphate reduces the formation and persistence of foam in the gypsum slurry, which can cause defects and cracks in the final product. It also improves the wetting and spreading of the gypsum on the substrate, resulting in a smooth and uniform finish.

Melamine Sulfonate

A dispersant in gypsum based materials, melamine sulfonate allows for high flow and water reduction. Suitable for use both drywall and joint compounds. Due to its light color, melamine sulfonate can be used in white and colored formulations.

DISPERSANTS/ WETTING AGENTS

Naphthalene Sulfonate

Naphthalene sulfonateis a type of surfactant that is derived from naphthalene, a hydrocarbon compound found in coal tar. Naphthalene sulfonate is widely used as a wetting agent in drywall, helping to reduce the surface tension of water, allowing it to penetrate and moisten the gypsum particles more effectively. This improves the workability and adhesion of the drywall, as well as the drying time and strength.

Polycarboxylates – CONTROL™ PCE

CONTROL™ PCE are the latest generation additives, widely used as a rheology modifier in gypsum and drywall. CONTROL™ improve the performance and quality of gypsum and drywall by reducing the water demand and increasing the fluidity of the gypsum slurry. They also help to control the setting and hardening of the gypsum plaster, resulting in a smooth and uniform finish.

Sorbitol

Sorbitol acts as a multifunctional humectant and plasticiser that improves the workability and surface smoothness of gypsum-based materials. It helps regulate moisture retention during setting, reducing cracking and ensuring uniform drying. Its compatibility with other additives makes it suitable for use in high-performance plaster, joint compound, and wallboard formulations.

FOAMING AGENTS

Air Entrainment - UNIMIX™ (AE)

UNIMIX™ (AE) powder additives for air-entrainment and foam generation. Foaming agents can play a major role in reducing the density of the drywall (gypsum board), which allows for ease of handling, thermal insulation, soundproofing, shorter drying times and savings in raw material costs.

FUNCTIONAL FILLERS

E-Glass

E-glass chopped strand and roving fibers are a type of glass fiber reinforcement that are made from electrically melted glass. The main characteristics of e-glass fibers are high strength, stiffness, and heat resistance. Widely used as a filler and reinforcement in gypsum and drywall, E- glass fibers improve the performance and quality of gypsum and drywall by increasing their tensile and flexural strength, reducing their weight and shrinkage, and enhancing their fire resistance and sound insulation.

Glass Spheres – MICRO™ (EFGS)

MICRO™ (EFGS) Expanded Foam Glass Spheres are tiny, white spherical particles of glass that have a hollow core and a thin wall. MICRO™ (EFGS) spheres improve the performance and quality of gypsum and drywall by reducing their weight and shrinkage, increasing their fire resistance and acoustic insulation, and preventing cracking and sagging.

Microspheres - MICRO™ (CM) Ceramic Microspheres

MICRO™ (CM) Ceramic Microspheres, also known as cenospheres are thin-walled hollow ceramic spheres with a high crush strength that can be used to modify rheology, reduce weight and shrinkage and improve thermal insulation in gypsum and drywall.

Modified Cornstarch

Modified Cornstarch is a high-performance white powder additive developed for gypsum-based formulations. It is specifically designed to enhance flow, surface finish, and processing efficiency in gypsum compounds and plasterboard production.

Calcium Carbonate

High-purity, fine-ground calcium carbonate designed for use in gypsum board and drywall formulations. It improves board density and surface smoothness while enhancing mechanical strength and paper adhesion. The material provides excellent brightness, low oil absorption, and consistent particle size for optimal performance in both standard and fire-rated board production.

Mica

High-aspect-ratio muscovite fillers that enhance workability, crack resistance, and surface smoothness in gypsum-based compounds and drywall systems. Their lamellar structure improves slip, reduces shrinkage, and increases cohesive strength during application. Also used in coatings, sealants, and polymer systems where reinforcement and dimensional stability are required.

SPECIALTY ADDITIVES

METHOD™ Cellulose Ethers (MC, HEC, HPMC)

METHOD™ range of cellulose ethers include methyl cellulose (MCs), hydroxy ethyl cellulose (HECs) and hydroxy propyl methyl cellulose (HPMCs). Cellulose ethers help retain moisture in the gypsum slurry, preventing it from drying out too quickly. In addition, METHOD™ Cellulose Ethers enhance the adhesion of the gypsum plaster to various substrates and modify the rheology to allow for easier mixing, spreading and application.

VINNSPERSE™ Dispersible Polymer Powder (RDP)

VINNSPERSE™ dispersible polymer powders, based on ethylene vinyl acetate (EVA), are easily dispersed in water to form stable emulsions. RDPs can improve adhesion, flexural strength and workability of modified gypsum compounds.

Sodium Trimetaphosphate (STMP)

STMP sodium trimetaphosphate is a white, crystalline salt used as an additive in gypsum and wallboard production. STMP sodium trimetaphosphate acts as a dispersant and a retarder, preventing the gypsum particles from clumping or settling, and slowing down the hardening process. This improves the workability and adhesion of the gypsum slurry, as well as the drying time and strength of the wallboard.

Polyvinyl Alcohol (PVA) 05-88

Polyvinyl Alcohol 05-88 is a partially hydrolysed, water soluble polymer used as a binder, film former and protective colloid. Its balance of viscosity and solubility makes it suitable for adhesives, construction materials, ceramics, textile sizing, emulsions and a wide range of industrial formulations.

HYDROPHOBING AGENTS / WATER REPELLENTS

CS-202 Methyl Hydrogen Silicone Fluid

Are active silicone fluid used as a hydrophobing agent in gypsum, cement, and mineral-based systems. Forms a breathable water-repellent film that enhances moisture resistance, reduces mold risk, and preserves board integrity. Ideal for surface and integral treatments in drywall, plasters, fiber cement, and porous masonry.

SILANOX™ H83

SILANOX™ H83 is a silicone-based waterproofing additive developed for gypsum and gypsum-containing drymix systems. It significantly reduces water absorption while maintaining the mechanical strength of the final product. Designed for easy dry blending prior to water addition, H83 supports improved moisture resistance and long-term durability in gypsum-based formulations such as plaster, joint compounds, and molded building materials.

SILANOX™ Methyl Hydrogen Silicone Fluid

A reactive silicone fluid used as a hydrophobing agent in gypsum and mineral-based systems. It forms a breathable water-repellent barrier that enhances moisture resistance, reduces mould risk, and improves durability in drywall and gypsum board applications.

RETARDERS

Tartaric Acid

Tartaric acid is a strong retarder in gypsum-based systems. The L+ variety with anti-cake is highly soluble and free flowing, allowing for easy dispersion in small dosages throughout the finished gypsum mix. The DL variant is also available in granular form.

FIBERS

Wet Chopped Strands

Glass fiber reinforcement for gypsum board and gypsum-based systems. Improves tensile strength, crack resistance, and dimensional stability. Enhances durability and performance in gypsum board manufacturing.

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