

## CONSTRUCTION ADDITIVES

### HYDROXY PROPYL METHYL CELLULOSE (HPMC)

#### GINSHICEL MH 9336 X3

These are types of non-ionic cellulose ether, which are a powder of white to off-white color, that function as a thickener, binder, film-former, surfactant, protective colloid, lubricant, emulsifier, and suspension and water retention aid. In addition, these types of cellulose ethers exhibit properties of thermal gelation, metabolic inertness, enzyme resistance, low odor and taste, and pH stability.

Due to the myriad of properties, HPMC is often used to substitute many other additives with lower concentration, making HPMC an incredibly efficient and effective additive in areas of Adhesives, Construction, Foods, Household Products, Pharmaceuticals, and etc.

### REDISPERSIBLE POLYMERS

(Vinyl acetate / Ethylene-Copolymer)

#### REPOL S51 L2

RPP - powder obtained as a result of drying of emulsion polymers that can be iteratively dissolved in water. It is used to improve of main properties and give new ones to different building materias. Admixtures are well soluble in water. Mortars, plasters, glues and fillers are notable for good processability, higher adhesion, bending strength, improved abrasive hardness. Each product manufactured under the brand RE-POL has its own differences and attributes of using. Our specialists have done everything so that manufacturers of dry building mixes can easily choose certain type of RE-POL for solving certain problems.

#### AXILAT HP 8510

Highly versatile resin with high redispersibility in water and used in dry mortars to improve workability of fresh mortar, adhesion to conventional substrates, and mechanical properties (flexibility, abrasion resistance and cohesive strength). Suitable for tile adhesives, mortars, external insulating finishing systems (EIFS), self levelling floor underlayments, gypsum joint compounds, and renders.

#### AXILAT HP 8538

Especially recommended for External Insulation Finishing Systems (EIFS), with ability to formulate in Low VOC applications. Also suitable for cement and gypsum based mortar applications.

## OTHER ADDITIVES

### ZINC STEARATE

It is a colorless metal soap. It is used as a water repellent agent, especially in cement based mortars, insulation materials and joint materials on surfaces where water repellency is required.

It is also used as a lubricant. It is compatible with rubber and plastics. Used as water repellent in construction chemicals

### CALCIUM STEARATE

Calcium Stearate is a waxy material with low solubility in water, unlike traditional sodium and potassium soaps obtained by heating stearic acid, fatty acids and calcium oxide together to a certain temperature.

It is used as a water repellent agent in cement based products, especially in plaster, joint and waterproofing mortars.

### CALCIUM FORMIATE

Calcium salt of formic acid. This substance, which is white powder in appearance, decomposes at high temperature. It is a white crystal with excellent fluidity used as a set accelerator in cement based products.

Thermal insulation mortar, tile adhesive, cement-based plaster, repair mortar, etc. In dry mortar products, high alumina cement and gypsum are often used as coagulants to increase early strength (also required to add antifreeze at low temperature) Calcium formate is a new type of set accelerator that accelerates the rate of cement setting, improves early strength and avoids the slow setting speed of the mortar in winter. Thus, the mortar should be used as early as possible, especially contributing to early strength.

It adjusts the cement-mortar delay at low temperatures and increases the early strength of the mortar.

### STARCH ETHER

The polysaccharide compound extracted from natural plants, with the same chemical structure and similar properties compared with cellulose ethers.

Used in building mortar, starch ether can significantly increase the consistency of mortar and improve the construction performance and sag resistance of mortar.

Starch ether is usually used in conjunction with non-modified and modified cellulose ethers. It is suitable for both neutral and alkaline systems, and compatible with most of the additives in gypsum and cement products, such as surfactants, HPMC, starch and polyvinyl acetate and other water-soluble polymers.



Starch ether is mainly used for hand or machine spraying mortar, tile adhesive mortar, caulking materials and adhesives, and masonry mortar with cement and gypsum as the cementitious materials.

The typical dosage of starch ether in the dry-mixed mortar is 0.01%-0.1%.

### **AIR ENTRAINING AGENT**

Powerful air entraining, wetting and plasticizing agent for mineral based dry premixed plasters, renderings and trowelling compounds.

Forms air pores with excellent stability, reduces shrinkage particularly of cement/cement-lime based mortar systems and prevents formation of cracks. Other advantages are the higher frost resistance and reduced tendency of efflorescence in hardened mortar.

The recommended concentration should be 0.005 – 0.05 % by weight, calculated on dry mortar.

### **POWDER DEFOAMING AGENT**

In cement-based mixtures, it helps to eliminate the entrained air and control foam formation by filling the gaps formed during pumping and plastering.

It prevents other disadvantages such as excessive shrinkage in cement or concrete thanks to the prevention of air bubbles and foam formation. It also helps to increase tightness.

The recommended concentration should be 0,2 – 6 % by weight, calculated on dry mortar.

### **GLASS FIBER**

It is the cropped form of glass fiber fibers. It is a glass fiber admixture product that is resistant to chemicals and high temperature used for crack rotre control, durability and durability in decorative concretes and compatible with all types of cement.

It increases abrasion, fracture, tensile strength, durability, torsion-fatigue resistance and water impermeability.