Sidley Chemical Co.,Ltd

SIDLEYCHEM®

Building Drymix mortar Additive *Series* **Products**

Cellulose ethers / Redispersible Polymer Powder/ Gypsum retarder / Hydrophobic agent / Defoamer /…

SIDLEY CHEMICAL CO.,LTD

SIDLEYCHEM®

REACH COMPLIANCE

Company Profile

Sidley Chemical Co.,Ltd

Sidley Chemical Co.,Ltd was established in 2005, specializing in the production and sales of cellulose ethers and building mortar additives. The company has a first-class R&D laboratory to develop drymixed mortar products for customers. Also, the company works on providing construction clients with professional customized products and systematic solutions. At present, Sidleychem's products have formed a field covering drymixed mortar, water-based paint, concrete.

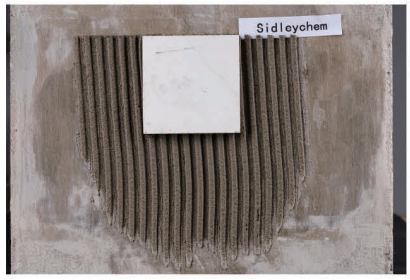
www.sidleychem.com

Provide customers with professional solutions

Building drymixed mortar additives

Hydroxypropyl Methyl Cellulose(HPMC)

Hydroxypropyl methyl cellulose has excellent stability and compatibility, and has extremely wide uses in the building materials industry. HPMC can be used as water retention agents, thickeners, and retarders and adhesive. The HPMC plays an important role in dry-mixed mortar, self-leveling mortar, tile adhesive, wall putty, gypsum mortar, etc.



Excellent Slip-resistance

Long Open Time

The performance of HPMC in dry mortar:

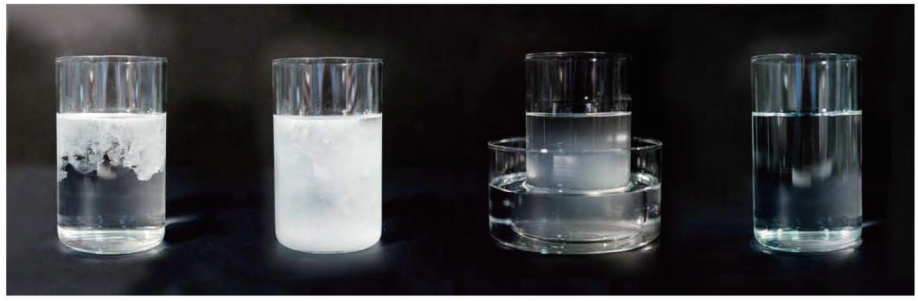
A. Excellent water retention can effectively prevent the mortar from losing water so quickly as to lose its operability, and avoid rapid surface drying and cracking, and make the mortar have a longer opening time and adjustment time;

B. The thickening effect of HPMC can control the mortar to achieve the best consistency, improve the cohesion of the mortar, achieve anti-sagging effect, improve operability, and greatly improve construction efficiency;

C. It can improve the bonding strength of the mortar, and it can ensure sufficient moisture and time to fully hydrate the cement, thereby ensuring that the mortar has better bonding performance and strength even in a high temperature environment.

Surface Treatment of HPMC

Surface treatment products are specially developed to avoid clumping in wet mixing applications. When preparing a solution for a surface-treated product, we can pour the product directly into cold water, and the HPMC will quickly disperse into the water and slowly form a viscous solution within a certain period of time. The delayed dissolution time is usually about 5 minutes when using surface-treated products (based on PH=7), but if the PH value of the solution increases, the delayed dissolution time will be shortened. The delayed dissolution time can be adjusted according to customer needs. Some products with surface treatment are indicated by the suffix "S" in the brand, such as MPC40TS.



1.Dispersion in cold water 2.Stirring 1-2hr at room temp 3.Adjust water tempe(20°C) 4.Solution

Hydroxyethyl Methyl Cellulose(HEMC)

Hydroxyethyl methyl cellulose (HEMC) is a different kind of cellulose ether from HPMC. The substitute groups of HEMC are hydroxyethyl and methoxy, while the substitute groups of HPMC are hydroxypropyl and methoxy. Compared with HPMC, HEMC has more hydrophilic groups, which means it has a relatively higher gel temperature, better water retention in hot environments, and better thermal stability.

Gel temperature is an important indicator of cellulose ether. The aqueous solution of cellulose ether has thermal gel properties. When the temperature of the solution reaches a certain value, the viscosity of the cellulose ether begins to decrease, and the solution is no longer uniform and transparent, but forms a white gel which separates out of the aqueous solution, and cause solution loses viscosity. In the hot summer weather, when the mortar temperature approaches or exceeds the gel temperature of the cellulose ether, the cellulose ether loses its water retention and thickening effects, the mortar no longer has good operability, and the bonding strength cannot be guaranteed.

When work under high temperature, HEMC is a better option as the water retention agent and thickener by ensuring better work performance and improving the strength of the mortar. In addition, the anti-sagging ability of HEMC is relatively better. It is more recommended to be used in tile adhesive, thick plastering mortar, light render plaster and other mortars that have requirements for anti-sliding.

Application Manual for SidleyCel® Cellulose Ether

Grade		Viscosity	Construction																					Extrusion	
			Cement Based												Gypsum Based					Latex Based				
			Tile Adhesive				Plaster/Render		EIFS/ETIC						Plaster										
			Nomal Tile Cement	Standard Tile Cement	High Pefomance Tile Cement	Tile Grout	Cement Plaster	Skim Coat	Adhesive	Base coat	Self Leavlling Compounds	Masonry Mortor	Fire proofing mortor	Water proofing mortor	Gypsum Hand	Gypsum Machine	Gypsum Finishing	Gypsum Filler / Joint Filler	Gypsum Adhesive	Plaster/Putty	Paint	Stone paint	Ceramic Extrution	Cement Extrution
HPMC *	MPB 40M	250-550									●●													
	MPB 40N	3000-4500				●					●												●●	
	MPC 20T(S)	18000-28000		●		●								●	●	●		●						
	MPC 40T(S)	40000-50000	●				●	●	●	●●			●				●							●
	MPC 60T(S)	55000-65000	●				●	●	●●	●		●							●					
	MPC 70T(S)	65000-75000							●										●					
HEMC *	MEC 20T(S)	18000-25000		●		●								●	●	●		●						
	MEC 40T(S)	40000-50000	●				●	●	●	●●			●				●							●●
	MEC 60T(S)	55000-65000	●				●	●	●●	●		●							●			●	●	●●
	MEC 70T(S)	65000-75000							●										●		●	●		
Modifed HPMC&HEMC *	MR04711	45000-55000	●	●			●	●	●	●		●	●		●		●		●					
	MR05702	50000-60000	●●	●			●●	●●	●	●●		●	●		●		●●		●●					
	MR 15101	50000-60000	●●	●			●●	●●	●	●●		●	●		●		●●		●●					
	MR 07105	55000-65000	●●				●●	●●	●●	●		●●	●●				●		●●					
	MR 13371	28000-38000	●	●●	●		●																	
	MR 12104	20000-30000			●●	●●								●●										
	MR 22109	20000-30000													●	●●		●						
	MR 22110	20000-30000			●●	●								●●	●●	●●								
	MR 24163	40000-50000													●●	●●			●					
	MR 25151	48000-58000													●●			●●						
	MR 46252	50000-60000					●●	●●		●●														
	MR 46254	55000-65000					●●	●●		●●														

● Workable ●● Recommended

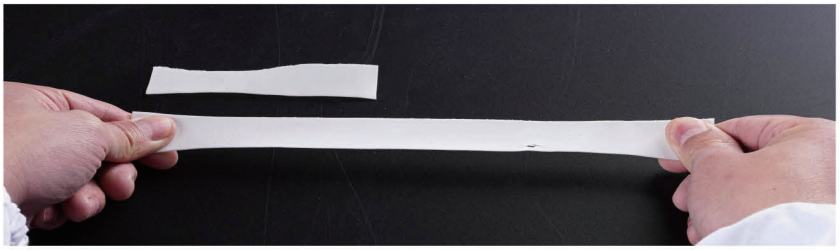
* Viscosity.Brookfield RV,2% solu.,20°C ** Viscosity.Brookfield LV,1% solu.,25°C

Redispersible Polymer Powder（RDP)

Redispersible Polymer Powder is the most important binder in cement and gypsum-based drymix mortar. It is a spray-dried powder of high molecular polymer emulsion. After mixing redispersible polymer powder with water for re-emulsification, it has the same properties as the original emulsion, which is a film formed after the water evaporates. This film has high toughness and excellent adhesion to various substrates. At the same time, redispersible polymer powder has good storage stability, and can be stored under normal conditions without adhesion. It can maintain good fluidity, and is conducive to large-scale production in factories.

The performance of redispersible polymer powder in drymix mortar

1. Redispersible polymer powder complements the advantages of inorganic materials. It can form a film inside the mortar and at the interface of the mortar to increase and improve the bonding strength of the mortar. For example, when used in tile adhesive, it can obtain products with higher pull-out strength by selecting different types and changing the addition amount.
2. It can improve the flexibility of the mortar, resist the cracking caused by the base layer and the shrinkage of the mortar. For example, when it is used in products such as exterior wall insulation plastering mortar or putty, its impact resistance, flexibility, and cracks reducing can be enhanced by the increase in the amount.
3. It can improve the abrasion resistance of mortar. For example, when used in self-leveling mortar, it can prevent the removal of surface powder, increase surface strength, and improve abrasion resistance;
4. It can improve and enhance water resistance. Special grade of redispersible polymer powder can be used in mortars such as waterproofing or leak plugging to form a closed membrane, in order to reduce water penetration and improve water resistance;
5. Redispersible polymer powder can improve hydrophobicity. For example, special grade of redispersible polymer powder can inhibit efflorescence when used in jointing agents or decorative mortars in order to reduce the precipitation of alkaline substances, prevent vomiting and improve decoration, such as RDP-8513.



Excellent flexibility

Recommended Application

Technical index&Application Manual for SidleyRDP															
Product Series			6 series			7 series			8 series			8 Special series			5 series	9 series
Product number			6011	6012	6013	7011	7012	7013	8011	8012	8013	8044	8313L	8513	5213	9213
Polymer type			VAE			VAE			VAE			VAE	VAE	VA/VV	VA/VV	AC
Solid content/%			≥98.0%			≥98.0%			≥98.0%			≥98.0%	≥98.0%	≥98.0%	≥98.0%	≥98.0%
Ash content/%			18%±2%	15%±2%	12%±2%	18%±2%	15%±2%	12%±2%	18%±2%	15%±2%	12%±2%	12%±2%	12%±2%	12%±2%	12%±2%	12%±2%
Bulk density/g/l			500-600			500-600			500-600			500-600	450-550	450-550	500-600	450-550
Particle size/μm			~80			~80			~80			~80	~80	~80	~80	~80
PH			5.0-8.0			5.0-8.0			5.0-8.0			5.0-8.0	5.0-8.0	7.0-9.0	7.0-9.0	7.0-9.0
Tg/℃			16			3			-5			-10	3	3	20	10
MFFT/℃			0			0			0			0	0	0	0	0
Application																
Cement Based	Tile Adhesive	Nomal Tile Cement	••			•			•			•		•	•	
		Standard Tile Cement (C1)	••			••			•			•		•	••	
		High Pefomance Tile Cement (C2)	•			••			••			•		•	••	
		Flexible Tile Cement (S1&S2)				•			••			••		•		••
	Tile Grout	Tile Grout	•			•			••			••		••		••
	Self leveling compounds	Self leveling Compounds				•			•			•	••			
	EIFS/ETIC	Adhesive	••			••			•			•		•	••	•
		Base coat	•			•			••			••		••	•	••
	Plaster/Render	Interior wall putty	••			••			•			•		•	•	•
		Exterior wall putty	•			•			••			••		••	•	••
	Others	Repair mortar	••			••			•					••	••	•
		Water proofing mortor	•			•			•					••		••
		Decorative mortar				•			•			••		••	••	••
		Stucco												••	••	
		Grout	•			•			••				••	•	•	
Gypsum Based	Gypsum Plaster	Gypsum Hand	•			••			•			•		••		
		Gypsum Machine	•			••			•			•		••		
	Self leveling compounds	Self leveling Compounds				•			•			•	••			
	Others	Gypsum Adhesive	•			••			•			•		••		
		Gypsum Filler / Joint Filler	•			••			•			•		••		

•Workable ••Recommended

VAE: Vinyl acetate/Ethylene VA: Vinyl acetate VV: Vinyl versatate AC: Acrylic

Hydroxyethyl Cellulose(HEC)

Hydroxyethyl Cellulose(HEC) is a non-ionic cellulose ether, and the raw material comes from natural wood pulp or cotton pulp. HEC has a series of different viscosity ranges to change the rheology of water-soluble coatings. HEC is treated with delayed dissolution, which can effectively prevent caking when the product is added to the aqueous solution. Hydroxyethyl cellulose ether with proper surface treatment can well adjust the dissolution rate and viscosity rise rate of the product. HEC can provide good pseudoplasticity in water-based coatings, and has wide compatibility with pigments, emulsions, surfactants, emulsifiers and defoamers. It is suitable for water-based paint such as latex paint and real stone paint.

Features

1. It has excellent biological stability, and can prevent the attack of mold in the solution.
2. It can provide good consistency in water-based paint and reduce splash effect.
3. It has good color development and compatibility, and can provide good dispersion and stability to various substances in the coating.

Specifications & Applications

Model	Viscosity	Paste putty	Latex paint	Natural stone paint
HE 40000E	32000-48000	●●	●●	●
HE 60000E	48000-72000	●	●●	●●
HE 100000E	80000-120000	●	●	●●
HE M150000S	15000-170000		●	●●
HE M60000S	40000-65000	●	●●	●
HE M40000S	30000-45000	●●	●●	●
● Workable ●● Recommend			Viscosity.NDJ,4#,,2% solu.,20°C	

Sodium CarboxylMethylCellulose(CMC)

Sodium Carboxyl Methyl Cellulose is an anionic cellulose ether, and its appearance is white or slightly yellow powder which is odorless and non-toxic; It is easily soluble in cold water and forms a transparent solution with a certain viscosity. The solution is neutral or slightly alkaline. The special type of sodium carboxymethyl cellulose can be used in water-based paints and putties, and has the characteristics of good thickening effect and good film formation.

Surface treatment grade CMC

Model	Viscosity	Purity	Application
CMC30000S*	1% 2000-3000cps	⩾95%	water-based paint
CMC60000S*	1% 3000-4000cps	⩾95%	water-based paint

Viscosity.Brookfield LV,1% solu.,25°C

Surface treatment grade CMC can be widely used in water-based paints, such as engineering paint, real stone paint, ordinary water-based paint, etc.

1. Good mold-resistance, no degradation in a long time;
2. Surface treatment grade CMC can be quickly dispersed in the aqueous solution to improve the consistency of the solution;
3. Good anti-splash effect and good color development.

Application for Interior wall putty

Model	Viscosity	Paste putty	Internal wall putty	Ceramic extrusion molding
CMC 821	500-800		●	
CMC 1500	1500-2000	●		●

● Recommend Viscosity.Brookfield LV,1% solu.,25°C

Properties of neutral wall putty for interior walls after adding Sodium carboxylmethyl cellulose and pregelatinized starch:

1. It has a good rapid thickening ability, a good bonding performance and a certain degree of water retention at the same time;
2. It can improve the construction performance of putty, make the operation smoother, and extend the open time of putty;
3. After the interior wall putty is dried, the surface is smooth, and does not take off powder, and has good surface film formation.

Calcium Formate

Calcium formate is a white crystal with excellent fluidity and is used as an early strength agent in mortar. In dry-mix mortar products, calcium formate can be used as an early strength agent to accelerate the hardening speed of cement, shorten the setting time, and improve the early strength. Especially in winter construction or under low temperature and humidity, it can be used to avoid slow condensation of the mortar, so that the mortar product can be put into use as soon as possible. It especially has great contribution to early strength.

Specification

Iterms	Standard
Appearance	white crystal
Purity	⩾98%
Calcium content	⩾30.1%
Moisture	⩽1%
PH	6.5-8.0

Features

Calcium formate is an early strength agent that accelerates the setting and hardening of concrete/mortar. Accelerating the setting and hardening of concrete/mortar means:

1. Shorten the initial setting time.
2. Normally change the retardation of cement/mortar under low temperature conditions.
3. Increase the early strength growth rate.
4. Shorten the closing time within the module in the production of concrete precast parts.
5. Shorten the time for concrete to reach its load capacity.

Silicone Hydrophobic Powder(WS80)

WS80 is a powdered silane-based product with strong hydrophobic effect. It is composed of powder carrier, protective colloid and easily dispersible organic silicon active ingredients. WS80 has both hydrophobicity and dispersibility. It is suitable for all kinds of mortars that need to prevent the penetration of liquid water, and improve the hydrophobicity and durability of the mortar itself.

Recommended Application

1. Joint filler
2. Waterproof mortar
3. Decorative mortar
4. External wall insulation system mortar

Usages

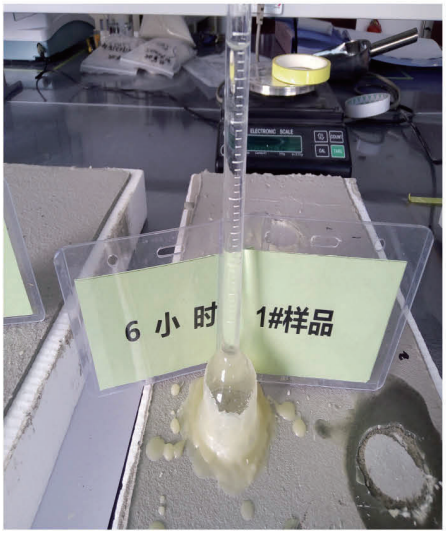
1. After mixing with other dry powder components, it is packaged as a finished product, and it is used after mixing according to the recommended amount of water on site.
2. The recommended dosage is 0.2%-0.5% by weight of dry powder, which hardly affects the compressive strength of the material.

Specification

Iterms	Standard	Iterms	Standard
Appearance	White powder, free flowing	80 mesh pass rate	⩾99.0%
PH Value(10% aqueous solution)	5.5~8.5	odor	Non
Bulk density	200~400g/L	Moisture content	⩽6%

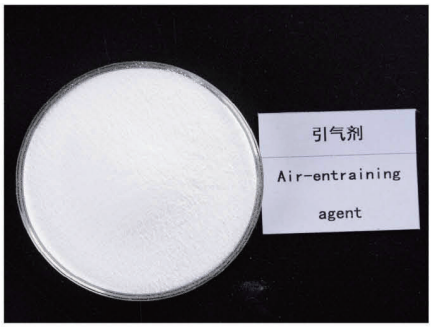
Packing

Standard packaging: 15kg Packed in paper bags lined with polyethylene film.



Air-entraining Agent(A-111)

A111 is an anionic surfactant agent with excellent emulsification, foaming, penetration and dispersion properties. It can introduce rich and delicate foam, and has good foam stability and good compatibility. It can be applied to alkaline, neutral and weak acid conditions.



Specification

Index	Standard
Appearance	White or light yellow powder
Odor	No abnormal smell
Grain size	⩽ 200μm
Whiteness	⩾ 80

Scope of application

It can be used in building materials that require air-entraining agent properties, such as leveling gypsum, thick leveling mortar, anti-freeze mortar, thermal insulation mortar, etc. When in use, mix fully with dry-mixed mortar, and then add water and stir. The recommended addition amount is 0.01% to 0.05% of the total weight of the mortar.

Packaging

This product is packaged in kraft paper with plastic film lined film bag, 20kg.

Defoamer(D-130)

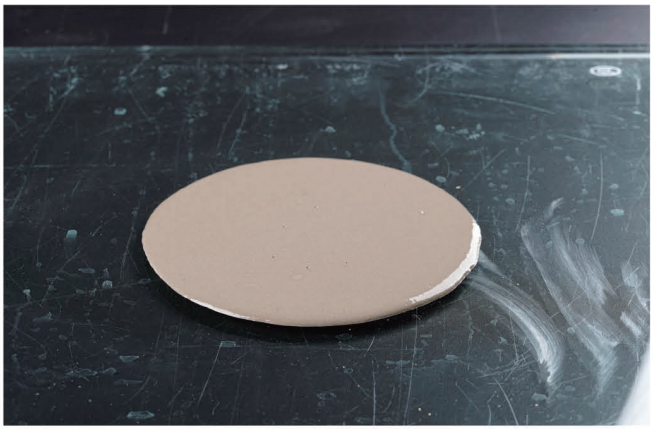
D130 is an efficient defoamer used in drymix mortar, and has good foam breaking speed and foam suppression. It is suitable for neutral and alkaline systems, and compatible with most other additives.

Specification

Index	Standard
Appearance	white powder
Grain size	⩽150μm
Residual moisture	⩽2.00%
PH value (10% aqueous solution)	6.0-8.0

Scope of application

It can be used in building materials that require defoaming properties, such as plaster, putty for interior and exterior walls, water-proof mortar, self-leveling mortar, grouting materials and grouting agent, etc. When in use, mix fully with dry-mixed mortar, and then add water and stir. The recommended addition amount is 0.01% to 0.2% of the total weight of the mortar.



Lignocellulose

Lignocellulose is an organic fiber extracted from natural wood and obtained through screening, splitting, high temperature treatment, neutralization, and sieving. Its micro-structure presents features of zonal bending and uneven porosity. Due to the water absorption properties of Lignocellulose, it can retain water during the drying or curing process of the mortar, thereby improving the maintenance environment of the mortar. Lignocellulose is non-toxic, tasteless, non-polluting, and non-radioactive. It is a green product, which is not available in other mineral fiber.

Specification

Model	W200	W300	W500	G500	G1000
Fiber Content	95%	95%	95%	95%	95%
PH Value	6.5	6.5	7.0	7.0	7.0
Volume Density	25-30g/L	25-30g/L	45-52g/L	25-30g/L	20-25g/L
Average Length	200um	300um	500um	500um	1000um
Moisture Rate	4.5	4.5	4.8	5.0	6.0
Appearance and Color	White	White	White	Gray	Gray
Dispersity	97.5%	98.0%	99.8%	97.5%	92.0%

Product Functions

❶ Excellent hydrophilic properties of Lignocellulose

Lignocellulose is easily dispersed in the thermal insulation material to form a three-dimensional structure, and can absorb 5-8 times of the water of its own weight. This structure and characteristic can improve the workability, operation performance, and anti-slip performance of the material, and accelerate the construction speed.

❷ Lignocellulose's own cavity structure design

The moisture transmission function of Lignocellulose enables sufficient hydration reaction between the surface of the mortar and the base layer, thereby improving the surface strength of the mortar and the bonding strength of the base layer, thus enhancing the early crack resistance of the mortar and concrete.

Product Application

Masonry mortar: Additive amount 0.5%~0.6%
Thermal insulation mortar: Additive amount 0.5%~0.6%
Tile adhesive: Additive amount 0.3%~0.5%
Joint agent: Additive amount 0.3%~0.5%
Exterior wall putty: Additive amount 0.3%~0.4%
Gypsum plaster: Additive amount 0.2%~0.4%

Hydroxypropyl starch ether(HPS)

Hydroxypropyl starch ether is a non-ionic starch produced by the etherification reaction of propylene oxide with starch under alkaline conditions, also known as starch ether. Starch ether can impart unique properties to cement and gypsum-based products. It has a similar chemical structure to HPMC, which not only provides functions similar to HPMC, but also has good compatibility with other building additives. When it is used with hydroxypropyl methyl cellulose, it can play a better role in thickening, have a better crack resistance, and improve workability. In addition, by adding starch ether, the cost of the mortar formulation can be significantly reduced.

Specification

Product Model	Starch ether-301
Appearance	white or light yellow powder
Moisture content	＜10%
PH	7.0-9.0(5% aqueous solution)
Viscosity	1200-1600mPa.s(5% aqueous solution)

Product Feature

The performance of starch ether in dry mortar is as follows:

1. Starch ether, due to its special chemical structure, can effectively prevent the hanging phenomenon of thick mortar, and is especially suitable for tile adhesives. It can significantly improve the product's anti-sagging and anti-slip properties in the tile adhesive system.

2. Adding an appropriate amount of starch ether to the mortar can prolong the open time of the mortar.

3. It has a fast thickening function for mortar, which can improve the rheology of mortar such as sprayed mortar and plaster mortar.

Polyvinyl Alcohol(PVA)

Polyvinyl alcohol powder is a selection of high-quality flake polyvinyl alcohol, using liquid nitrogen as the medium, crushed and processed in a low temperature environment. It is a water-soluble and environmentally friendly high molecular polymer with good film-forming, emulsifying and bonding properties. Polyvinyl alcohol powder as an additive for putty and mortar, it can improve the flexibility, water retention and workability of mortar and putty.

Feature

1. Water solubility: It is easily soluble in water at room temperature, and the aqueous solution is transparent. It is non-toxic, harmless, safe and environmentally friendly.
2. It has high glue rate and high viscosity.
3. Chemical resistance: At room temperature, its water-soluble PH value is about 5-7. The viscosity is stable, and it is hardly affected by weak acids, weak bases or organic solvents (esters, ketones, alcohols, hydrocarbons). It has extremely high oil resistance.

Specification

Iterms	PVA1788	PVA2488
Viscosity (mpa.s)	20.0-26.0	44.0-56.0
Degree of alcoholysis〔%（mol/mol〕	86.0-90.0	86.0-90.0
Volatile content (%)	7.0	7.0
Ash content(%)	0.7	0.7
PH Value	5.0~7.0	5.0~7.0
Purity(%)	92	92

Scope of application

Polyvinyl alcohol powder can be widely used in various wall putty, dry mortar, tile adhesive and other building materials. It is especially suitable for internal and external wall putty, mainly for bonding, and enhancing the surface strength of putty.
PVA can improve the flexibility of putty, reduce cracking, and extend the drying time of putty surface.

Instructions

1. Add the required amount and mix it evenly before use.
2. Recommended dosage: 0.3-3% of total putty powder (mortar)
3. Dissolution method: The 88 series of polyvinyl alcohol powder resin products can be dissolved at room temperature. When dissolving, add this product slowly into the water and stir at the same time (Do not dissolve the product directly, in order to avoid clumping). Or even mix the product with other powders before dissolving.

Polypropylene Fiber

Polypropylene fiber is a short-cut fiber made of polypropylene with additives, mixing, spinning, stretching, and made by special processes such as anti-static and anti-ultraviolet. It is a special fiber for concrete and mortar, which can effectively control the cracks of concrete and mortar due to shrinkage, dry shrinkage and temperature changes, greatly improve the anti-crack and anti-penetrability performance as well as abrasion resistance, and increase the toughness of concrete, thereby increasing the service life.

Specification

Items	Standard	Items	Standard
Length mm	3、6、9、12	Breaking strength MPa	⩾400
Initial Modulus GPa	⩾3.5	Elongation at break %	15～35
Melting Point °C	about 165	Burning point °C	about 580
Acid resistance	Extremely high	Security	Non-toxic, non-irritating
Alkali resistance	Extremely high	Thermal conductivity	Extremely low
Cold resistance	Good	mMgnetic	Non

Instruction

Reduce concrete cracks, enhance concrete impermeability and toughness, thereby increasing the service life of buildings. It is particularly effective as anti-cracking and impermeable materials in concrete corrosion tanks, basement works, roofing, storage tanks, external wall plastering, etc. In terms of concrete prefabricated plates and pipes, it can increase the resistance to breakage and reduce shrinkage and settlement cracks.

Application

Water conservancy and hydropower engineering, cast-in-place concrete and precast components, Municipal administration, highways, bridges, housing construction projects, industrial production of premixed mortar, leveling mortar, putty, etc.

Dosage:

1. The recommended amount of mortar per square of ordinary plastering mortar is 0.9-1.2kg, normally 1kg/m^3.
2. The recommended amount of insulation mortar per ton is 1-3kg.
3. The recommended amount of concrete per cubic meter of concrete is 0.6-1.8kg, normally 0.9kg/m^3.

Packing

20 kg/bag, containing 20 sachets, 1kg/bag.

Gypsum Retarder

Gypsum retarder is a protein retarder developed for gypsum-based products and is widely used to adjust the setting time of various gypsum. In the mixture of gypsum and water, GR-50 as a retarder can reduce the growth rate of hydrated crystals. Its activity is reflected in the correlation between the setting time and the addition amount, and good performance can be obtained even at a low addition amount.

In general, GR-50 can be used alone in gypsum formulations, but can also be used with citric acid and tartaric acid to obtain delayed hardening and suitable consistency.

Model	Recommended amount	Features
GR-50	0.1-0.3%	Economical and practical, easy to add, Easy to mix evenly
GR-60	0.05-0.2%	Efficient retarding effect, moderate cost performance
GR-70	0.01-0.1%	The retarding effect is good, the addition amount is low, which can match the efficiency of imported similar products, but due to the low addition amount, there are higher requirements for the production mixing equipment

Performance

1. Excellent retarding effect
2. Low dosage
3. Little impact on strength
4. Significantly increase the operating time of gypsum mortar

Application

1. Gypsum plaster
2. Bonding plaster
3. Joint plaster
4. Gypsum-based self-leveling

Usage and dosage

Gypsum retarder needs to be fully mixed with other components evenly, and the appropriate dosage should be selected according to the performance requirements of different products. In gypsum plaster, the recommended dosage is 0.1%~0.3% of the total gypsum, and the specific dosage is determined through experiments according to the desired effect, material and formula.

Polycarboxylate Superplasticizer Powder

Polycarboxylate Superplasticizer Powder is a powdered water reducing agent made by spray drying process. Polycarboxylate Superplasticizer Powder has the characteristics of good fluidity, high water reducing rate, good solubility, and wide adaptability. It has good adaptability to different types of Portland cement base, high-alumina cement, sulphur-alumina cement, and dry mortar materials based on them.

Recommended Application

This product is mainly applied to :

1. Non-shrinking grouting material, grouting agent, self-leveling mortar, floor mortar;
2. Waterproof mortar, repair mortar, thermal insulation mortar and supporting mortar;
3. Bonding mortar, joint mortar;
4. Masonry mortar, plastering mortar;
5. High-strength mortar, high-liquid mortar.

Specification

Items	Indicator
Appearance	White to light pink powder
Bulk density(kg/m3,20°C)	400-700kg/m3
Moisture content(%)	⩽ 5%
PH Value (20% solu, 20°C)	7.0-9.0
Chloride ion content	⩽ 0.05%
Concrete water reduction rate(%)	⩾25%

Model	Features	Recommended Application
PCE802	High fluidity,high water-reduction rate	Self Leveling concrete
PCE128	high water-reduction rate	Grouting concrete

Powder Melamine water reducing agent(SMF-10)

Powdered melamine water-reducing agent is a water-soluble polymer resin made by spray drying. It is anionic and a high-efficiency water-reducing agent with early strength, non-air-entraining type and low chloride ion content. SMF-10 is suitable for cement-based or gypsum-based mortars that require high fluidity and high strength. Along with a higher water reduction rate, it has an excellent workability, and is not easy to sag. Besides it can significantly improve the compactness and surface gloss of the material.

Specification

SMF-10 has a significant brightening effect and is especially recommended for the application in wear-resistant floors, joint fillers, GRG plaster, mold plaster, fair-faced concrete and cement products. SMF-10 has an excellent applicability to aluminate cement, so it has excellent water reducing effect in cement self-leveling mortar and refractory materials. It is also widely used in waterproof mortar, oil well cement, and gypsum plaster.

Physicochemical Property

Items	Indicator
Appearance	White powder, free flowing
Bulk density	400-700kg/m3
Moisture content	⩽5.0%
PH Value(20% solu, 20°C)	7.0-8.0
Chloride ion content	⩽ 0.05%
Air content of concrete	⩽ 3.0%
Concrete water reduction rate	⩾14%

Tile Adhesive Additives Compound

Tile Adhesive Additives Compound is a Compound mortar admixture, and is composed of various additives such as water retaining agent, thickener, binder, etc. It can be used to produce C1/C2 standard tile adhesive or various dry mortars. All can meet the requirements of European building standard EN 12004-1-2017. According to the requirements of the production ratio, Tile Adhesive Additives Compound, cement and sand can be packaged and sold after being evenly mixed on site, which greatly reduces production costs and R&D costs, and has stable and reliable quality. It is suitable for small and medium-sized mortar factories.

Features

1. Improve production efficiency
2. Reduce labor costs
3. Reduce labor intensity
4. Stable Quality

Instructions

1. Put it directly into the mixer during production, mix it evenly with cement, sand, etc., and put one bag per ton.
2. Suggested order of feeding: When mixing, put the cement first, after put the mortar partner, and then put the sand.
3. Suggested mixing time: no less than 5 minutes.

Recommended ratio

When using 325 cement (The 28-day compressive strength is not less than 32.5MPa):

Ingredient	Specification	Units	Amount
Cement	32.5 Strength	Kg	400~500
Sand	50~100 mesh	Kg	Make up to 1000
Mortar partner	C1TE type	Kg	15

When using 425 cement (The 28-day compressive strength is not less than 42.5MPa):

Ingredient	Specification	Units	Amount
Cement	42.5 Strength	Kg	300~400
Sand	50~100 mesh	Kg	Make up to 1000
Mortar partner	C1TE type	Kg	15

Important note

This formula is for testing only. In actual applications, customers also need to adjust according to the raw materials used and actual engineering conditions, and must not be directly used in production and actual applications. We do not assume any responsibility for the engineering losses caused by the customer's choice of production formula.

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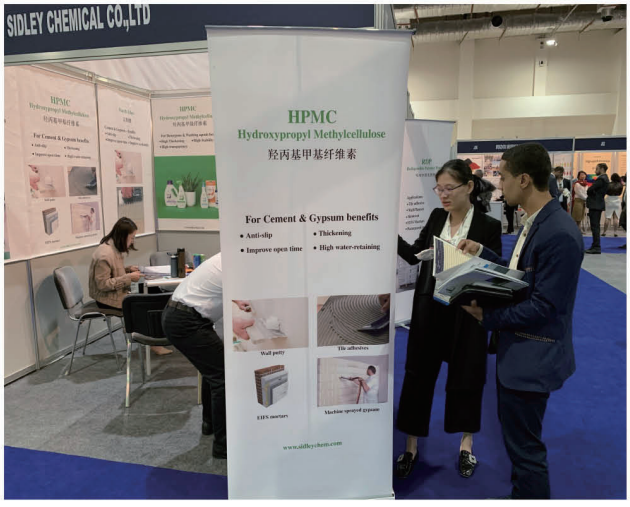

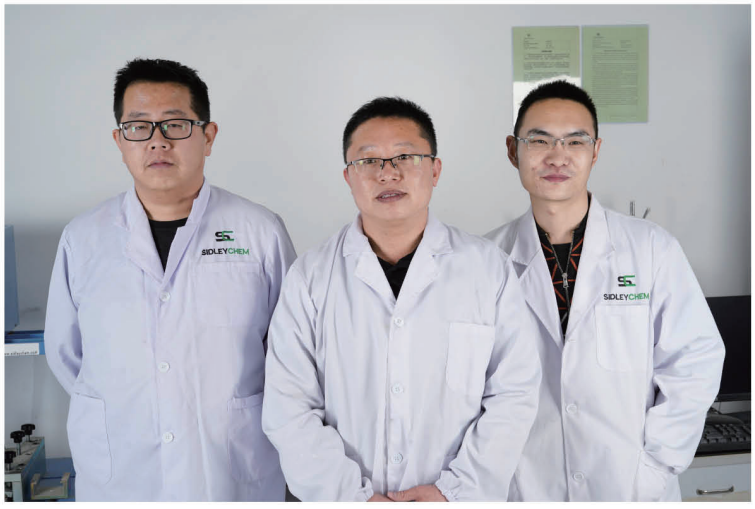

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