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SIDLEYCHEM®

About us

Sidley Chemical Co.,Ltd is one of the major manufacturers of additives world-wide, supplied under the brand name Sidleychem® series additives. Sidleychem series additive is used in a wide variety of products and applications.

Applications
Building Materials
Drymix mortar
Concrete
Gypsum
Paints
Others

Concrete Additive

Water-Reducing Agent, Special additive, Concrete Fiber

Sidley Chemical Co.,Ltd

SIDLEYCHEM®

SIDLEYCHEM®

REACH COMPLIANCE

Company Profile

SIDLEYCHEM has extensive experience in the production of concrete admixtures. We can adjust the synthesis process according to the customer's needs and provide solutions for different materials and climates.

SIDLEYCHEM has a professional concrete laboratory, which can help customers optimize the proportion of C30/C60/C80/C100/C200 strength concrete, reduce costs and the strength still meet the technical requirements of the concrete. SIDLEYCHEM to provide customers with professional, customized one-stop product supply services and systemized solutions. whatever suits you is the best product.

Mother Liquor Water-Reducers

Mother liquor Water-Reducer (Polycarboxylate Ether based) is a concentrated liquid admixture based on superplasticizer technology, primarily used to produce high-range water reducers and superplasticizers in concrete. It serves as a base or "mother" solution from which diluted superplasticizer formulations are prepared.

Type		Code	Solid Content (%)	Features And Recommendations	Appearance	Standard
Mother Liquor	PCE 150L	SD0107	70	Mid-water-reducing, high solid content, 70%	Liquid	EN934-2:T3
	PCE 152L	SD0161	50 & 60	Ultra high water reduction rate≥45%, Exhibit excellent performance in early strength growth	Liquid	
	PCE 154L	SD0106	50 & 60	Ultra high water reduction rate	Liquid	
	PCE 156L	SD0109	50 & 60	Mid-slump retention, mid-water-reducing	Liquid	
	PCE 155L	SD0108	50 & 60	Slump retention mother liquor	Liquid	
	PCE 157L	SD0110	50 & 60	Adjust the workability of concrete，highly slump-retention	Liquid	
	PCE 159L	SD0162	50 & 60	Super early strength water reducer	Liquid	

Powder Water-Reducing Agent

Powder Water-Reducing Agent is a chemical additive used in concrete and dry mortar to improve workability and strength by reducing the water content without compromising the mixture's flow. These agents are typically based on substances like lignosulfonates, naphthalene sulfonates, or polycarboxylate superplasticizer, which disperse cement particles more effectively.

Type		Code	Features And Recommendations	Appearance	Standard
Powder Water-Reducers	PCE 104P	SD0077	PCE powder for gypsum	Powder	EN934-2:T3
	PCE 128P	SD0166	PCE powder for grouting material	Powder	
	PCE 802P	SD0011	PCE powder for self-leveling mortar	Powder	
	PCE 906P	SD0076	PCE powder for UHPC	Powder	
	PCE 157P	SD0165	6-9 hours of ultra long slump retention time	Powder	
	SL 50P	SD0168	Sodium lignosulfonate	Powder	EN934-2:T2
	CL 50P	SD0167	Calcium lignosulphonate	Powder	
	SMF 10P	SD0075	Powder melamine superplasticizer	Powder	EN934-2:T3
	SNF 05P	SD0088	Naphthalene sulfonate	Powder	
	SNF 18P	SD0089	Naphthalene sulfonate	Powder	

Functional water-reducers

Functional water-reducers are special types of admixtures designed not only to reduce water content but also to impart additional performance benefits to concrete, such as enhanced workability, setting control, or durability.

Type		Code	Features And Recommendations	Description
Normal Water-Reducers	NWR 50	SD0143	For lower strength concrete	Naphthalene sulfonate-based
Mid-Range Water-Reducers	Ment NS	SD0145	For Ready-mixed concrete, Small precast concrete products, Prestressed Concrete Cylinder Pipe(PCCP), Concrete pile	Naphthalene sulfonate-based
	Ment NS Powder	SD0144	For Ready-mixed concrete, Small precast concrete products, Prestressed Concrete Cylinder Pipe(PCCP), Concrete pile	
	Ment NS 95	SD0146	Superplasticizer for Roller Compacted Concrete(RCC)	
	PCE 1015L	SD0160	Mid-range water-reducing admixture for ready-mixed concrete.	Polycarboxylate ether-based
	PCE 1025L	SD0158	Water-reducing admixture for industrial concrete floor slabs with power-floated finishes	

Functional water-reducers

Functional PCE are applied to various types of concrete. Customers can directly use functional PCE in concrete based on its characteristics.

Type		Code	Features And Recommendations	Description
High-Range, Water-Reducers	PCE 1016L	SD0159	Superplasticizers for Aerated Autoclaved Concrete (AAC)	Polycarboxylate ether-based
	PCE 1026L	SD0157	Superplasticizers, ready-mixed concrete, concrete for infrastructures	
	PCE 1036L	SD0156	Superplasticizers, Good retarding time for Mass Concrete(MC)	
	PCE 1046L	SD0155	Superplasticizers, Self-compacting concrete, Concrete with long delivery times（superior slump retention）concrete in hot climates，6-9 hours of ultra long collapse protection time	
	PCE 1056L	SD0154	Superplasticizers for low clinker concrete production	
	PCE 1066L	SD0153	Superplasticizers for industrial concrete floor slabs with power-floated finishes	
	PCE 1076L	SD0151	Superplasticizers concretes containing challenging sands such as those containing swelling clays	
	PCE 1085L	SD0150	Self-compacting Superplasticizer for use in GRC and precast concrete	
	PCE 1086L	SD0149	Superplasticizers, high early strength for Shotcrete or Precast concrete (Large box girders or T-beams used for railway or highway bridges)	
	PCE 1096L	SD0152	Superplasticizers, High performance for UHPC	
	PCE 20SL	SD0147	Superplasticizers, Operational time 8-12 hours excellent slump retention ability for top lifting method for construction of steel pipe arch or steel pipe column concrete	
	PCE 20SP	SD0148	Superplasticizers, high early strength for precast subway pipe segments concrete or Tunnel segments	

Viscosity Modifying Agents

Viscosity modifying agents are additives used in concrete to adjust and control its viscosity and rheology. They improve the workability, stability, and cohesion of fresh concrete, especially in complex mixes or self-compacting concrete (SCC).

Type		Code	Features And Recommendations	Appearance	Dosage
Viscosity Modifying Agents	VMA	SD0111	Application area: SCC, Manufactured Sand Concrete, Low binding material concrete.Improving the flowability and stability of concrete by improving the performance of concrete slurry rather than increasing the amount of cementitious materials used	Liquid	3-8kg/t
	LV1	SD0112	Application area: High-strength concrete, Concrete with high viscosity, Low slump pumping concrete. By reducing the viscosity of concrete, improving its workability and flexibility, it facilitates the pumping and construction of concrete.	Liquid	40-100kg/t
	Stabilizer 5R	SD0113	Application area :Low binding material concrete, Artificial sand concrete, Ultra-fine sand concrete, Discontinuous graded coarse aggregate concrete. By increasing the viscosity or air content of concrete, improving its workability, enhancing its wrapping properties, and avoiding segregation and bleeding.	Liquid	20-50kg/t
	Stabilizer 7R	SD0114		Powder	10-30kg/t
	Stabilizer 9R	SD0115		Powder	0.5-2kg/t

Set-Retarding And Hydration Control

Set-retarding and hydration control are essential strategies in concrete technology, aimed at delaying the setting time and managing the hydration process to enhance workability and durability.

Type		Code	Features And Recommendations	Appearance	Dosage
Set-Retarding And Hydration Control	SG 100	SD0085	Usually added to finished water reducing agents and then used in concrete. It can improve the retarding effect of concrete, delay the initial and final setting time of concrete, and maintain a shorter initial and final setting time difference.	Powder	5kg-100kg/t
	TCD 98	SD0084		Powder	5kg-100kg/t
	RETARD 24	SD0119	It is a liquid concrete admixture mainly used for large volume concrete or concrete projects with longer pouring times. When added with 2%, the initial and final setting time can be extended to 72 hours or more; After the initial setting delay in the plan, the hardening speed accelerates without affecting the later development of concrete strength.	Liquid	0.2 - 1.5 %
	RETARD 96	SD0120	It is an active intervention aimed at the adiabatic temperature rise process of large volume concrete hydration, which can significantly inhibit the cement hydration process, delay the internal heating rate of concrete, reduce the hydration temperature peak, and delay the appearance time of the temperature peak, effectively suppressing or reducing the temperature shrinkage cracks of concrete.	Liquid	0.5-2.0%

Strength-Enhancing And Set-Accelerating

Strength-enhancing and set-accelerating additives are chemical admixtures used in concrete to improve early strength development and accelerate the setting process. They are particularly useful in cold weather, for quick construction schedules, or when early form removal is necessary.

Type		Code	Features And Recommendations	Appearance	Dosage
Strength-Enhancing And Set-Accelerating	SETPLUS	SD0116	SEPULS is an engineered suspension of crystal seeds containing nanoparticles, designed to boost the hydration process of early age cement (6-12 hrs)	Liquid	0.50 to 6.00 kg per 100 kg of cement (binder)
	SET AC205	SD0117	SET AC205 ready to use, liquid admixture is formulated to accelerate time of setting and to increase early concrete strengths. SET AC205 admixture does not contain calcium chloride	Liquid	0.5– 3.0 L/100 kg of cementitious materials
	SET AC105	SD0118	SET AC105 ready-to-use, liquid admixture is designed to make more uniform and predictable quality concrete while accelerating setting time and strength development. This product contains intentionally-added calcium chloride	Liquid	1-4 L/100 kg of cementitious materials

Air-Entraining Agents

Air-entraining involves adding air-entraining agents to concrete to create a stable, uniform distribution of microscopic air bubbles within the hardened concrete. This process enhances durability and workability, especially in environments prone to freeze-thaw cycles.

Type		Code	Features And Recommendations	Appearance	Dosage
Air-Entraining Agents	AE 180P	SD0189	Sodium Dodecyl Sulfate	Powder	5-400mls/m3
	AE 185L	SD0190	Rosin Oligomer	Liquid	20-400mls/m3
	AE 190P	SD0191	Triterpenoid Saponin	Powder	30-400mls/m3
	AE 195L	SD0192	Synthetic Polyether	Liquid	50-600mls/m3
	Finish 200	SD0121	Synthetic based AEA, controlled air-entraining, high quality air void system, improved concrete density and surface finish，for SCC or low-viscosity concrete	Liquid	10-300mL/100 kg cement
	LWC 10	SD0060	LWC 10 is an aqueous solution based on sodium alkyl sulfate.It is used in plasterboard	Liquid	0.02-0.10 % by weight of stucco
	LWC 30	SD0061	LWC 30 is typically used in plasterboard, It is designed to generate mid-coarse bubble to achieve light weight gypsum wallboard, which bring customer the benefits such as: to reduce raw material cost, easy installation of plasterboard, and low transportation cost so on.	Liquid	0.02-0.10 % by weight of stucco

Defoamer

Defoamers are admixtures used to reduce or eliminate excessive foam and entrapped air in fresh concrete. They help improve the flow, workability, and surface finish by controlling unwanted foam that can form during mixing or placement.

Type		Code	Features And Recommendations	Appearance	Dosage
Defoamer	DF 130P	SD0124	It is a special polyether defoamer. It is completely silicon free, has good defoaming and foam suppression effects, good water solubility and dryness, strong acid and alkali resistance, and can eliminate foam in various water-based systems	Powder	0.02-0.3%
	DF 230L	SD0122	It is used to manufacture architectural quality concrete satisfying the requirement for a largely void-free concrete surface. It is particularly suitable for SCC and flowing concretes	Liquid	0.10 to 0.30 kg per 100 kg of cement (binder)
	DF 330L	SD0123	It is used to manufacture building grade concrete that meets the requirement of virtually no voids on the concrete surface. It is particularly suitable for SCC, Plain concrete, Mass concrete and Precast concrete	Liquid	0.10 to 0.30 kg per 100 kg of cement (binder)

Surface Improving Admixtures

Surface improving admixtures are special additives designed to enhance the finish, appearance, and surface properties of hardened concrete. They help achieve smoother, denser, and more durable surfaces with better aesthetic qualities.

Type		Code	Features And Recommendations	Appearance	Dosage
Surface Improving Admixtures	Finish RL99	SD0129	Ready-to-use Water emulsion form release agent for elements where excellent surface finish is important.	Liquid	10-30 kg/m2
	Finish DF430	SD0126	Concrete defoamer for high-quality architectural concrete achieves a largely void-free surface in self-compacting and flowing concretes.	Liquid	0.10 to 0.35 litre per 100 kg of cement (binder)
	HC	SD0128	Concrete curing agent to prevent the evaporation of moisture, allowing gases to pass through and facilitate respiration.	Liquid	4-5 m2/litre
	HCP	SD0127	Surface enhancers can penetrate into concrete, enhance surface strength, and prevent water evaporation.	Liquid	4–7 m2/litre
	TARD-S	SD0125	Surface retarder, retard set of surface mortar in concrete, suitable for exposed aggregate surface, prevent cold joints.	Liquid	200 sq. ft. per gallon

Corrosion Inhibitors

Corrosion inhibitors are chemical admixtures used in concrete to protect embedded steel reinforcement from corrosion, particularly in aggressive environments such as marine settings, de-icing areas, or industrial exposure.

Type		Code	Features And Recommendations	Appearance	Dosage
Corrosion Inhibitors	CIA 24	SD0130	Dual action corrosion inhibitor, anodic and cathodic protection, reduced occurrence of corrosion, no calcium nitrite	Liquid	10–12 kg/m³
	CNI	SD0131	CNI is a calcium nitrite-based corrosion inhibiting admixture containing a minimum of 30% calcium nitrite by mass	Liquid	10–12 kg/m³

Shrinkage Reduction

Shrinkage reduction in concrete involves using admixtures or techniques to minimize different types of shrinkage:plastic, drying, and autogenous;that can cause cracking and compromise durability.

Type		Code	Features And Recommendations	Appearance	Dosage
Shrinkage Reduction	SRA	SD0132	Drying shrinkage reducing admixture, suitable for high performance concrete, reduces formation of cracks	Liquid	2.0-6.0 L/m3
	SR 100P	SD0021	Drying shrinkage reducing admixture, suitable for high performance mortar, reduces formation of cracks	Powder	0.2 – 2.0% of cement (binder)
	CRA	/	Plastic shrinkage reducer, reducing plastic shrinkage cracks	Powder/Liquid	5.0-10.0 L/m3

Water-Tight Admixtures

Water-tight Admixtures in concrete refer to structures or elements designed to prevent water infiltration and ensure durability in watertight or waterproof conditions. These are critical in reservoirs, tunnels, underground structures, swimming pools, and water tanks.

Type		Code	Features And Recommendations	Appearance	Dosage
Water-Tight Admixtures	WT50	SD0133	Integral watertight admixture, reduces water absorption and water penetration under pressure	Liquid	1.0-2.0% of cement (binder)
	WT100P	SD0134	Integral crystalline admixture, reduces water absorption and water penetration under pressure.	Powder	3.75kg/m3

Shotcrete Accelerator

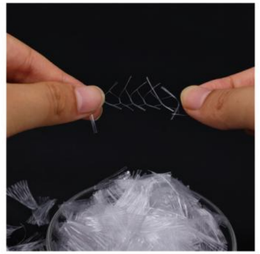
Shotcrete accelerator is an admixture added to shotcrete (sprayed concrete) to speed up the setting time and early strength development, especially useful in cold weather or for rapid repair work.

Type		Code	Features And Recommendations	Appearance	Dosage
Shotcrete Accelerator	SA 06	SD0173	Alkali-free liquid set accelerator, chloride-free	Liquid	5.0-10.0%
	SA 06MP	SD0193	The use of SA 06MP and aluminum sulfate compound to SA 06 finished accelerators does not require heating. Water is added for physical stirring at room temperature and pressure. The compounding method is simple and can significantly reduce the cost of end products.	Powder	/

Expansion Agent

Expansion agents are admixtures used in concrete to induce controlled expansion during setting or curing, minimizing shrinkage and reducing cracking.

Type		Code	Features And Recommendations	Appearance	Dosage
Expansion agent	EA 25P	SD0030	Magnesium oxide expansion agent, Ensure micro expansion of concrete in the later stage	Powder	10-40kg/M3



Concrete Fiber

Concrete fibers are small, discrete reinforcing materials added to concrete mixes to improve toughness, control cracking, and enhance durability.

Type		Code	Features And Recommendations	Description
FIBER	STF LH	SD0138	End hook type	Steel fiber
	STF BCM	SD0137	Brass coated micro steel fiber type	Steel fiber
	PPMF	SD0136	Polypropylene macro fiber	Synthetic fibre
	PPKF	SD0251	Polypropylene kink fiber	Synthetic fibre
	PPSF	SD0135	Polypropylene mesh fiber	Synthetic fibre
	PPCF	SD0062	Polypropylene chopped & monofilament fibre	Synthetic fibre
	PVAF	SD0194	Polyvinyl alcohol fiber	Synthetic fibre
	PANF	SD0195	Polyacrylonitrile fiber	Synthetic fibre
	PESF	SD0196	Polyester fiber	Synthetic fibre
	CLF	SD0197	Cellulose fiber	Cellulose fiber
	GF	SD0198	Glass fiber	Glass fiber

Synthetic Monomer

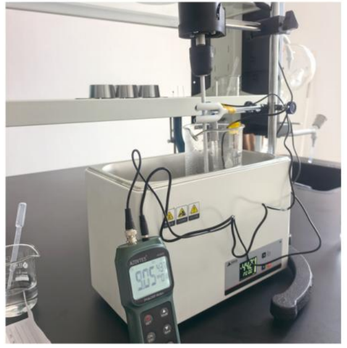
Polycarboxylate Ether (PCE) is a common superplasticizer used in concrete technology. The synthesis of PCE usually involves specific monomers that impart the desired dispersing and water-reducing properties.

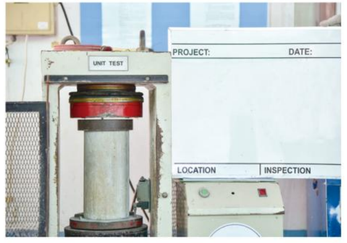
Chemical Name	Model	Code	Product Description
Methyl allyl alcohol polyoxyethylene ether	SHPEG-2400/3000	SD0285	In general, it is used for the synthesis of water reducing agents with high water reduction rate or good slump retention performance.
Acrylic alcohol polyoxyethylene ether	XPEG-2400/3000	SD0286	
Isopentenol polyoxyethylene ether	TPEG-2400/3000	SD0287	
4-Hydroxybutyl vinyl polyoxyethylene ether	VPEG-2400	SD0288	
Methyl allyl alcohol polyoxyethylene ether	SPEG-2400	SD0289	
Ethylene glycol monovinyl polyoxyethylene ether	EPEG-1000	SD0290	In general, it is used for the synthesis of water reducing agents with good slump retention or viscosity reduction properties.
Alkylene based polyoxyethylene ether	MHPEG-4000/5000	SD0291	In general, it is used for the synthesis of water reducing agents with high water reduction rates or early strength.

Cement Grinding Aid

A cement grinding aid is a chemical additive used during the grinding process of cement to improve its efficiency. These aids help in reducing energy consumption, enhancing the grinding process, and improving the properties of the final cement product.

Type		Code	Features And Recommendations	Description
Cement grinding aid Admixture	AGA 2150	SD271	AGA series of acetylene alcohol amine products is a water-soluble Gemini surfactant and small molecule amine copolymer developed specifically for cement grinding aids. It is mainly polymerized from tetramethyldecynediol and 2-amino-2-methyl-1-propanol. The AGA series products can maintain good cement dispersibility during the grinding process and also have the polarity of alcohol amine structure. They can replace some diethanolamine monoisopropanolamine to achieve comprehensive effects of improving quality and reducing costs. The general substitution amount is 20-40% of triethanolamine or triisopropanolamine.	Liquid
	AGA 4200	SD273		Liquid

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