Applied to the Industry Total Solutions of the Coatings and Ink

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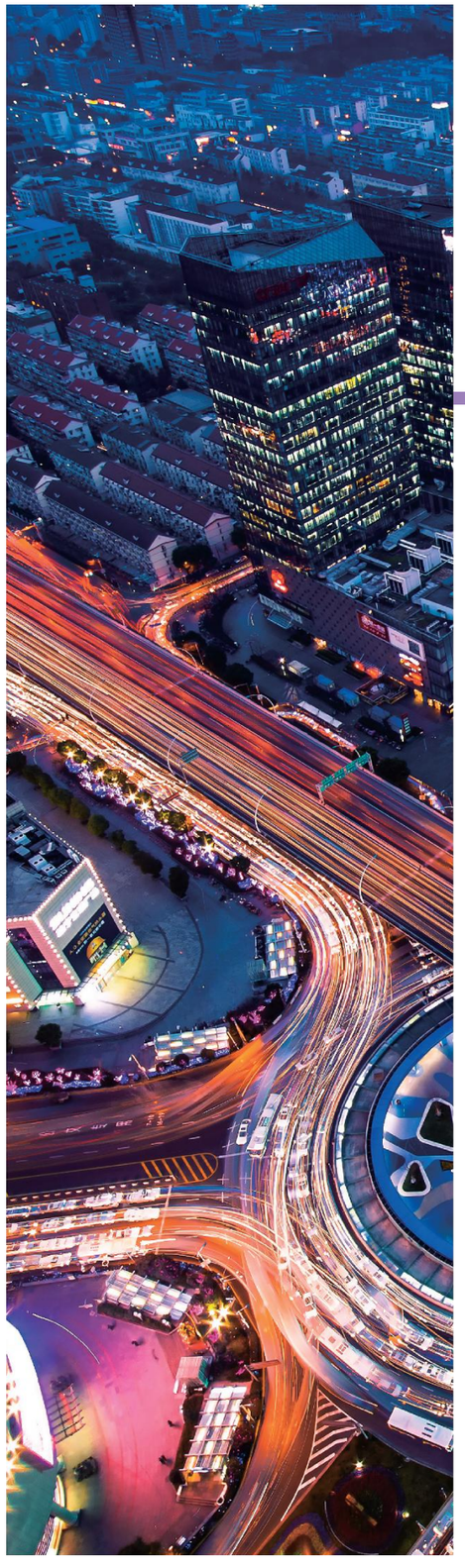
Shanghai Kastar Chemical Co.,Ltd.



开士达
KASTAR CHEMICAL

COMPANY PROFILE

Kastar (Shanghai) Chemical Co., Ltd was founded in 2006. We are a specialized chemical manufacturer and supplier focusing on total solutions for the industry, We also are an expert in adhesion promotion in the industry. The main industries include coating and inks, adhesive and sealant, surface treatments and chemical fibers.

Our company has self-developed brand (L.A.), and with DOW, Borchers, BRUNO BOCK, SIBELCO, IMERYS, CLARIANT, and 5N PLUS maintain a very good and close relationship and we are their largest authorized distributors.

Our main products are siline, drier, dispersant, wetting agent, rheological modifier, leveling agent, thiols, chain transfer agent (insoluble & water-soluble), epoxy resin, talc powder and industrial ink and high adaptability of pure UV color paste.

We have been working hard to provide more chemical enterprises with high-quality, efficient integrated services. We have been striving to create a broader exchange platform for more global chemical brands and Chinese chemical enterprises, and we look forward to the exchange and cooperation with you.

CONTENTS

*W=Water-based S=Solvent

Founded in 1943, Dow Corning is a global leader in organic silicon, silicon-based technology, and innovation. In 2018, the new brand DOWSIL entered the Chinese market, integrating the advantages of Dow and Dow Corning, and strengthening the technical expertise accumulated in the long-term application of its organic silicon products and solutions in numerous industries across the globe.

Slip assistance, scratch resistance, leveling properties

Product	Description	Features/Advantages
DOWSIL™11 Additive	Silicone polyether copolymer dissolved in toluene, effective content is 10%	Improves the scratch resistance of solvent-based coatings, also improves leveling and gloss, and prevents pigment separation
DOWSIL™18 Additive	Dispersion of high molecular weight polydimethylsiloxane and organosilicone surfactant, the effective content: 100%	Used in water-based and solvent-based coating systems, it has slip and scratch resistance; in water-based coating systems, it also has anti-adhesion properties.
DOWSIL™27 Additive	Non-reactive silicone polyether copolymer; 100% active ingredients	It is scratch-resistant, smoothness, and can maintain gloss; also can reduce the friction coefficient.
DOWSIL™29 Additive	Silicone polyether copolymer	Used in water-based and solvent-based coating systems, it has scratch resistance;also can improve leveling and substrate wettability.
DOWSIL™51 Additive	Moisture dispersion of high molecular weight polysiloxane, the effective content is: 80%.	Used in water-based coating systems, it has scratch resistance and slip-promoting properties; it also has anti-adhesion properties.
DOWSIL™52 Additive	Moisture dispersion of high molecular weight polysiloxane, he effective content is: 64%.	Used in water-based coating systems, it has scratch resistance and slip-promoting properties; it also has anti-adhesion properties.
DOWSIL™55 Additive	Silicone polyether copolymer, dissolved in 2-butoxyethanol, the effective content is:10%	Used in water-based and solvent-based coating systems to improve slippability and scratch resistance; used in solvent-based coating systems to improve leveling.
DOWSIL™56 Additive	Aromatic alkyl modified silicone,the effective content is: 100%	In solvent-based shower coating systems, it helps to degas and stabilize the curtain layer of the shower coating, improves leveling and gloss; helps in pigment orientation; and has good thermal stability.
DOWSIL™57 Additive	Silicone polyether copolymer.	Solvent-based acrylics, alkyd resins, amides, epoxy resins, nitrocelluloses, polyurethanes, vinyl and UV inks.
DOWSIL™401LS Additive	Silicone polyether copolymer.	Used as a flow and leveling additive in water-based and solvent-based coating systems;can also reduce friction coefficient to enhance slip and feel; compatible with clear coats.
DOWSIL™8526 Additive	100% carbon hydroxyl functional organosilicon polyether	It has good leveling and smoothness, and has good compatibility with solvent-based, water-based and UV-curable coatings, inks and overprinting paint.
DOWSIL™205LS Additive	Silicone polyether copolymer, dissolved in ethylene glycol isopropyl ether, effective content: 50%.	It is an advanced feel modifier for various coating systems, which can reduce the coefficient of friction (CoF) and control bubbles. It is also effective in solvent-based coatings.

Applicable resin system	Adding method and amount	Applicable diluent
Solvent-based acrylic acid, alkyd resin, amide, epoxy resin, nitrocellulose, polyester, polyurethane, vinyl	It can be added during grinding or paint preparation, or 0.1-0.5% can be added afterwards.	Aromatic solvents，such as xylene or toluene, mineral oil or ketones.
Acrylic, polyester, polyurethane (water-based and solvent-based).	Add when mixing paint, or add 0.1-1% later.	Water
Water-based acrylic flexographic ink and UV overprint varnish.	Add when mixing paint, or add 0.1-1% later.	Water or appropriate solvent
Acrylic, epoxy, polyurethane (water-based and solvent-based)	It can be added during grinding or paint preparation, or add 0.1-1% later.	Water or alcohol
Water-based acrylic, alkyd resin, epoxy resin, nitrocellulose, polyester, polyurethane, vinyl	It can be added during grinding or paint preparation, or add 0.05-3.0% later.	Water
Water-based acrylic， polyurethane	Add when mixing paint, or add 0.1-3.5% later	Water
Waterborne acrylic, alkyd resin, solvent-based polyurethane	Add 0.1-0.5% after mixing painting	Water or alcohol
Solvent-based acrylic acid, alkyd resin, epoxy resin, nitrocellulose, polyester, aminoester alkyl.	It can be added during grinding or paint preparation, or add 0.05-0.5% later.	Aromatic solvents such as xylene, toluene, mineral oils and esters such as butyl acetate.
Improves leveling, smoothness, scratch resistance and gloss in water-based and solvent-based coating systems; has low foam stability and anti-cratering.	It can be added during grinding or paint preparation, or add later.0.1-1.0%	Acetone, toluene, mineral oil and isopropyl alcohol; Dispersible in water
Water-based acrylic and polyurethane; solvent-based polyurethane.	It can be added during grinding or paint preparation, or add later.0.05-1.0%	Alcohols, glycol ethers and aromatic solvents
Solvent and water-based acrylic, epoxy, polyester and polyurethane; UV.	Add during grinding, paint mixing or after. 0.2-1%.	Water, alcohols, toluene, xylene
Water-based acrylic, polyurethane, alkyd resin, polyester, solvent-based polyurethane, polyester; UV acrylic	Add when matching paint. 0.1 to 1%.	Alcohols, glycol ethers and aromatic solvents

Bubble Control

Product	Description	Features/Advantages
XIAMETER™ OFX-0190 silicone oil	Silicone polyether copolymer,effective content :100%.	Used in water-based and solvent-based coating systems, it has scratch resistance and substrate wettability.
DOWSIL™211S Additive	Ultra-high molecular weight polydimethyl silicone water dispersion, effective content: 60%	It is used to improve the smoothness and feel of the coating surface, improve scratch resistance, and strengthen anti-adhesion properties. It has good compatibility with various resin emulsions, reducing the possibility of shrinkage cavities.
DOWSIL™210S Additive	Ultra-high molecular weight silicone aqueous dispersion, effective content: 60%.	It is used to improve the smoothness and feel of the coating surface, improve scratch resistance, and strengthen anti-adhesion properties. It has good compatibility with various resin emulsions, reducing the possibility of shrinkage cavities.
XIAMETER™ ACP-0001	Silicone oil used to prevent foaming in aqueous and non-aqueous industrial processes.	Economical, easy to use, effective at low concentrations

Applicable resin system	Adding method and amount	Applicable diluent
Water-based and solvent-based acrylic, solvent-based epoxy resin and nitrocellulose, water-based polyurethane.	It can be added during grinding or painting, or after. 0.1 to 1.0%.	Water or alcohol
Water-based acrylic, alkyd resin, epoxy resin, polyester, polyurethane, etc.	Can be added directly without dilution.It can also be diluted with water or cosolvent before adding. 0.1 to 1.0%.	Water
Water-based acrylic, alkyd resin, epoxy resin, polyester, polyurethane, etc	Can be added directly without dilution. It can also be diluted with water or cosolvent before adding. 0.1 to 0.3%.	Water
——	——	Aliphatic, aromatic and chlorinated hydrocarbon solvents, and ethylene glycol

Bubble Control

Product	Description	Features/Advantages	Applicable resin system	Adding method and amount	Applicable diluent
DOWSIL™ AFE-7610	The solid content is 11%.	Highly effective foam suppressant and defoamer that can be used at low concentrations, rapid foam control and good durability under high temperature and high alkaline conditions.	——	DOWSIL™AFE-7610 defoamer should be added as close to the foaming point in the process as possible.	softened water
DOWSIL™62 Additive	Silicone emulsion, dissolved in water, effective content: 57%.	It can effectively control foam in water-based paints and inks, has good compatibility, and is less prone to defects; does not contain APEO.	Water-based acrylic, polyurethane.	It can be added when grinding, or when mixing paint. 0.05 to 0.5%.	Water
DOWSIL™65 Additive	Silicone emulsion, 59% active ingredient	It is a foam control agent for inks and coatings. While defoaming, it provides leveling, wetting, slippery and scratch resistance functions.	Water-based acrylic, polyurethane， etc.	It can be added when grinding, or when mixing paint. 0.05 to 3%.	Water
DOWSIL™69 Additive	Silicone emulsion, dissolved in water, effective content: 50%.	Provides efficient foam control for water-based inks, overprint varnishes, wood coatings and other water-based paints.	Acrylic, polyurethane	Add after paint mixing. 0.05 to 0.5%	Water
DOWSIL™71 Additive	Organic modification, silicone copolymer	It can effectively control bubbles in water-based coatings (especially inks), achieving an effective balance between bubble suppression and coating aesthetics.	water soluble acrylic	It can be added during or after painting. 0.1 to 0.5%	Alcohols, glycols, ethers and fatty alcohols
DOWSIL™102F Additive	Fluorosiloxane, 1% active ingredient	Provides foam control performance with balanced efficacy and compatibility.	Solvent-based alkyd resin, 2K polyurethane	It can be added when grinding, or when mixing paint. 0.5 to 0.7%.	Methyl ethyl ketone and propyl acetate
DOWSIL™106F Additive	Silicone emulsion containing silica, 42% active ingredient	Used in water-based coatings and inks, it has good compatibility, long-term defoaming ability, and strong microbubble defoaming ability.	Water-based acrylic, polyurethane	Add during grinding and paint blending. 0.1 to 0.5%	Water
DOWSIL™112F Additive	Silicone emulsion, 20% active ingredient	Used in water-based corrugated paper inks and water-based industrial coatings, it has efficient and long-term defoaming and suppression effects.	Acrylic emulsion and rosin resin system, etc.	Add 0.1-0.5% during grinding and mixing stages	Water
DOWSIL™163 Additive	Silicone defoamer mixture, effective content: 100%	Effective control of air bubbles in water-based, solvent-based and radiation-curable coatings and inks.	Water-based and solvent-based acrylics, epoxies, polyesters, polyurethanes, vinyls, and radiation-curable systems are also available.	It can be added during or after painting. 0.1 to 1%	Ethylene glycol
DOWSIL™8590 Additive	Silicone antifoam mixture with silica; 100% active ingredient	At low doses, it can bring effective foam control performance to water-basedcoatings and ink systems, with no impact on gloss, low surface defect rate, low viscosity, and easy dispersion.	Water-based acrylic styrene emulsion paint, flexographic ink, acrylic overprint eraser, acrylic polyurethane emulsion	Add during or after grinding or mixing paint. 0.05 to 1.0%	Add directly or dilute with alcohol or alcohol ether solvent first
DOWSIL™8610 Additive	Silicone antifoam mixture with silica; 100% active ingredient	At low doses, it can bring effective foam control performance to water-based coatings and ink systems, with no impact on gloss, low surface defect rate, low viscosity, and easy dispersion.	Water-based acrylic emulsion paint, acrylic styrene emulsion paint, flexographic ink, polyester acrylic, acrylic modified alkyd	Add during or after grinding, painting mixing. 0.05 to 1.0%	Add directly or dilute with alcohol or alcohol ether solvent first.

Water-Resistance

Product	Description	Features/Advantages	Applicable resin system	Adding method and amount	Applicable diluent
DOWSIL™84 Additive	Low viscosity silicone elastomer emulsion; effective content: 60%	It can provide water resistance for water-based systems, especially inks.	Mainly acrylic	Add when matching paint or add after. 1.0 to 5.0%	Water
DOWSIL™87 Additive	Emulsion; Effective content: 38-44%	It has hydrophobicity and water beading effect in water-based systems and has little effect on water vapor permeability; especially suitable for decorative coatings.	Acrylic, styrene acrylic and vinyl ester emulsions	Add during or after painting. 1.0 to 5.0%	Water
DOWSIL™88 Additive	Silane/siloxane mixture, effective content: 98%	It is hydrophobic in water-based systems and has little effect on water vapor permeability; it can be used in water-based systems containing polar solvents as well as solvent-based systems; especially suitable for decorative coatings.	Acrylic acid, styrene propylene	Add during or after painting. 1.0 to 5.0%	Aliphatic hydrocarbons，aromatic hydrocarbons and polar solvents

Wettability

Product	Description	Features/Advantages	Applicable resin system	Adding method and amount	Applicable diluent
DOWSIL™67 Additive	Silicone polyether copolymer	It provides good spreadability and wettability of water-based and radiation-curable coating systems on difficult-to-treat substrates, such as polyethylene, polypropylene, and polyester on low surface energy substrates. It is suitable for plastics, metals, and wood of inks, decorative and industrial coatings.	Water-based acrylic, alkyd resin, polyester, polyurethane	Can be added with paint or after adding. 0.1 to 0.4%	Isopropyl alcohol, propanol; Dispersible in water
DOWSIL™501W Additive	Silicone polyether copolymer	Enhances substrate wetting in water-based and radiation-curablesystems; suitable for a variety of substrates, including wood and plastics.	Water-based acrylic and polyurethane; radiation-cured acrylic.	Add when matching paint. 0.1 to 0.4%	Isopropyl alcohol, propanol and toluene; dispersible in water

Special texture (matte/tactile)

Product	Description	Features/Advantages	Applicable resin system	Adding method and amount	Applicable diluent
DOWSIL™23N Additive	Powdered transparent spherical silicone rubber particles containing epoxy functional groups; the average particle size is 1-3 microns.	It is scratch and abrasion resistant and exhibits silky, slippery and matte properties in water-based and solvent-based coatings.	Water-based and solvent-based acrylic, polyurethane.	A proportion of the resin/solvent system should be added under high shear conditions before mixing into the final formulation. 0.5-5.0%.	Ethylene glycol, glycol ether, alcohols, water
DOWSIL™33 Additive	Aqueous suspended spherical silicone rubber particles containing epoxy functional groups; The average particle size is 3-4 microns; Effective content: 46%	It has silky, smooth and matting properties for water-based coatings	Water-based and solvent-based acrylic, polyurethane.	Can be added after painting. 2-10%	Water
DOWSIL™61 Additive	The solvent contains 10% silicone	Gives a hammered paint effect to metal surfaces	Mainly solvent, partially water-based	SB-final dilution stage, WB-0.05-0.5%.	Xylene or toluene and other aromatic solvents, mineral oil or ketone, etc

Pigment dispersion

Product	Description	Features/Advantages	Applicable resin system	Adding method and amount	Applicable diluent
DOWSIL™3 Additive	Silicone hydroxyl functional group (Si-OH) additive; dissolved in toluene, effective content: 10%	Promotes pigment dispersion and reduces floating colors, and also has leveling, fluidity and gloss.	Solvent-based acrylic, alkyd, polyester, epoxy, polyurethane.	It can be added during grinding or painting, or after. 0.1 to 0.5%	Aromatic solvents such as xylene or toluene, mineral oil or ketones
DOWSIL™700P Additive	Alkoxysiloxane with organic groups; 90% active ingredient	High-grade TiO2 and low-grade TiO2 titanium dioxide dispersants can disperse pigments stably and prevent them from blooming and discoloration.	Solvent-based inorganic filler dispersant.	Combined with resin before adding pigments for grinding. 0.02-4.0%	Xylene and n-butyl acetate

Silicone oil

Product Name	Application fields
PMX-200 0.65-600000	Lubrication, dispersion
PMX-0930 Hydroxy silicone oil	Solid silica gel structure control agent
PMX-0156 Silicone silicone oil	Solid silica gel structure control agent

Silicone oil emulsion

Product Name	Application fields
MEM-0349 Emulsion	Titanium dioxide treatment
MEM-5009 Emulsion	Glass fiber lubrication
MEM-8715 Emulsion	Glass fiber lubrication
ACP-0001	Defoaming agents are used in adhesive and coating industrie
DOWSIL™8024	Food grade release agent
MEM-0039	Inorganic surface treatment

Silane coupling agent

Product	Description	Features/Advantages	Applicable resin system	Adding method and amount	Applicable diluent
XIAMETER™6011 Silane	The effective content of aminopropyl triethoxysilane is: 99%	Effectively improves adhesion in water-based and solvent-based coating systems, as well as pigment surface treatment in water-based coating systems.	Water-based and solvent-based acrylic,solvent-based polyurethane. Used in: fiberglass processing agents, adhesives, coatings and inks.	Add when grinding or painting, or add after. 0.05 to 2.0%	Alcohol and water
XIAMETER™6020 Silane	The effective content of aminoethyl aminopropyltrimethoxysilane is 99%	Effectively promotes adhesion and pigment surface preparation in water-based and solvent-based coating systems.	Water-based and solvent-based acrylic alkyds, epoxy resins, polyurethanes. Structural adhesive, glass adhesive base material adhesion promoter.	Can be added when grinding or dispensing paint. Primer diluted to 10% in isopropyl alcohol Additive active content: 0.5-2.0%	Alcohol and water
XIAMETER™6030 Silane	Silane with methacrylic methoxy functional group, effective content: 98%; when used as a primer, suitable for dipping or brushing.	When used as a primer or additive, it improves adhesion to inorganic substrates in water-based, solvent-based and radiation-curable coating systems.	Water-based and solvent-based acrylics, alkyds, epoxies, polyesters, polyurethanes, vinyl radiation-cured acrylics. Application: glass fiber sizing agent, silicone acrylic emulsion, UV adhesive, EVA film.	Add when mixing paint, or add afterward. Primer: dilute 0.1-0.5% in acidic (PH~4.0) water. Active additive: 0.1-3.0%	Alcohol and water
XIAMETER™6032 Silane	Cationic vinyl benzyl and amino functional methoxysilane; dissolved in methanol, effective content is 40%.	Effectively promotes adhesion of water-based and solvent-based coating systems; It can also be used as an additive or primer.	Water-based and solvent-based acrylic and epoxy resins. In printed circuit board composite materials,it is used as a coupling agent between glass fiber cloth and epoxy resin.	It can be added during grinding or paint preparation, or added afterward. Primer: Dilute with a 10:1mixture of methanol or ethanol and water. Active additive: 0.05-3.0wt%	Alcohol and water
XIAMETER™6040 Silane	Silane with oxychloromethoxy functional group; effective content: 99%. Suitable for dipping or brushing when used as a primer.	Effectively promotes adhesion of water-based and solvent-based coating systems and pigment surface treatment; can be used as an additive or primer.	Water-based and solvent-based acrylics, alkyds, amides, epoxies, polyurethanes, vinyl. Glass fiber sizing agent, glass paint, anti-corrosion coating, metal surface treatment, UV coating oil content.	Can be added during grinding or paint preparation. Primer: dilute to 10% in isopropyl alcohol, active content additive: 0.05-3.0%	Alcohol and water
XIAMETER™6070 Silane	Low viscosity alkoxysilane, effective content 95%	Used as surface hydrophobic agent for inorganic materials and pigment dispersant.	It reacts with water to generate silanol and methanol. Silanol can condense with the carboxyl groups on the surface of inorganic materials such as quartz, clay, and silica to form a hydrophobic layer.	As a pigment and filler treatment agent, the added amount is 0.5-1.0% of the total solid content; powder filler treatment can be added directly to the powder mixer. When used as diluent, dilute 10% with methanol or isopropanol.	Methanol, isoalcohol and water
XIAMETER™6062 Silane	Mercaptopropyl functional trimethoxy-silane, effective content 98%.	Provides coupling between inorganic surfaces (clay, glass) and sulfur-cured elastomers, improving the physical properties of minera elastomers.	UV resin, modified filled elastomer, metal aluminum substrate adhesion promoter	Alkoxysilane hydrolyzes into methanol when combined with water	Alcohol and water
XIAMETER™6697 Silane	Ethyl orthosilicate (TEOS), effective content 99%.	The small molecule structure has good permeability and is combined with inorganic, high anti-ultraviolet stability, does not affect the aesthetics of the substrate, maintains water vapor penetration, and can undergo sol-gel reaction with OFS-6070.	Stone reinforcement for construction material such as buildings or monuments.	Use alone, diluted, or used in formulated products containing 70-75% active ingredient	Alcohol and water
XIAMETER™6403 Silane	Undiluted high purity isobutyltriethoxysilane with an effective content of 98%.	The small molecular structure can penetrate deeply into the concrete surface to produce a water-repellent treatment layer, inhibit water absorption, and help surface modification improve compatibility with non-polar substrates.	Water-based or inorganic resins.	Seal gun, roller, brush, reapply, thoroughly soaked	Isopropyl alcohol, ethanol or various flash point solvent oils
XIAMETER™6341 Silane	High purity undiluted (n-octyltriethoxysilane), effective content 98%.	The small molecular structure can penetrate deeply into the concrete surface to produce a water-repellent treatment layer, improve the dispersion of polar fillers in non-polar materials, and can be used to formulate waterproofing products.	Oily or inorganic resins.	Seal gun, roller, brush, reapply, thoroughly soaked. The solvent contains 20% and 40% silane	Alcohol, chlorinated solvent, aliphatic solvent, low molecular weight polydimethylcyclosiloxane
XIAMETER™6124 Silane	Inorganic surface hydrophobic arylalkoxysilane, effective content 94%.	It has inorganic reactivity, can achieve inorganic surface hydrophobicity, and can be used for pigment treatment. It is a silane coupling agent mixture.	——	Surface silylation: 2% Silane solution, primer: 3.5-4% Pigments and fillers: 0.5-1.0% Additive: 0.1-3.0%	Methanol, ethanol, isopropyl alcohol, acetic acid
XIAMETER™6778 Silane	Water-soluble potassium methyl silicate salt solution, effective content 40%.	As a surface treatment agent, it can make the surface of the substrate waterproof and reduce the water absorption of the substrate, making various substrates waterproof.Colorless and non-yellowing, it maintains its original appearance.	——	Dilute to 3% or less Dip, spray or brush	Water
XIAMETER™6610 Silane	High purity amino functional alkoxysilane, effective content 98.5%.	Improve the dry and wet, tensile/flexural strength and modulus of composite materials, increase the transparency of glass fiber materials, and improve the adhesion of plastic resins and elastomers to the surface of inorganic materials.	——	Dilute aqueous solution (0.1-0.5% silicone)	Isopropyl alcohol and water
DOWSIL™6132 Silane	The effective content of vinylbenzyl aminoethyl aminopropyl trimethoxysilane (average structure) is 37%	Improve the stickiness of plastic resin to inorganic surfaces, improve the wet strength and dry strength of the composite, and the treated glass fiber fabric has good resin wettability.	Water-based and plastic resin mineral fillers can be used as coupling agents for glass fiber fabrics in printed circuit board composite materials. They can be matched with a variety of organic and inorganic materials to improve the performance of composite materials.	Dilute aqueous solution (silane concentration 0.1-0.5%) on inorganic surfaces	Organic solvents and water
DOWSIL™6269 Silane	Styryl-aminotrimethoxy-silane, 40% silane in methanol solution	Improves the adhesion between epoxy resin and inorganic substances (glass fiber), has both organic and inorganic reactivity, and has low turbidity in aqueous solutions.	In printed circuit board composite materials, it is used as a coupling agent between glass fiber cloth and epoxy resin.	After pre-hydrolysis, the recommended concentration is 0.1-0.5wt% silane effective content in aqueous solution	Glacial acetic acid and water
DOWSIL™AZ-720 Silane	Amino-functional silane coupling agents and organic polymers	Glass fiber reinforced composites to improve mechanical properties and surface appearance.	Thermoplastic and thermosetting resin fiberglass composite materials	——	——

Milliken is a global leader in manufacturing, focusing on materials science. Its spirit of continuous breakthroughs has created numerous cutting-edge achievements, products that improve people's lives, and innovative solutions for customers and communities.

Founded in 1807, Borchers is a global producer of specialty chemicals. Borchers is renowned for its innovative high-performance coating additives and special catalyst solutions, with a rich variety of cobalt free driers, dispersants, rheological modifiers, wetting agents, polymerization catalysts and other product lines. In various fields such as coatings, inks, adhesives, leather, rubber tires, composite materials, etc., it provides customers with environmentally friendly solutions that align with sustainable development concepts.

Wetting Dispersant

Borchers additive	System*	Chemical Composition	Activity%	Description
Borchi®Gel 0851	W	PU(Polyurethane)	50% solid content, solvent water	*Free of volatile organic compounds (VOC) and alkyl phenol polyoxyethylene ether (APE0); specifically used in water-based systems to disperse difficult-to-handle organic pigments and carbon black. *Provides low viscosity organic pigment dispersions, which are particularly excellent in providing blackness for carbon black dispersion and have long-term dispersion stability.
Borchi®Gel WNS	W	Low molecular weight polyether modified compounds	90% solid content, solvent water	*Free of volatile organic compounds (VOC) and alkylphenol oxyethylene ethers (APE0); recommended for use in water-based colorants and water-based printing ink systems. *Provides excellent color development and improved storage stability through organic pigments.
Borchi®Gel DFN	W/S	Low molecular weight polyether modified compounds	100%	*Free of volatile organic compounds (VOC) and alkylphenol oxyethylene ethers (APE0);Recommended for the dispersion of organic pigments and carbon black in water-based and solvent-based systems. *Provides excellent pigment wetting, excellent tinting strength and stability of the paint system.
Borchi®Gel 12	W/S	Low molecular weight polyether modified compounds	100%	*Free of volatile organic compounds (VOCs) and alkylphenol oxyethylene ethers (APEO); Recommended for use in CAB and nitrocellulose based systems. *Improve pigment wetting and dispersion time, and have OH functional group, which can participate in system cross-linking reaction.
Borchi®Gel ND	W/S	Phosphate/amine compounds	100%	*High gloss and excellent color development properties, as well as good pigment wettability. *Can be used as an anti-gelling agent when using alkaline pigments and acidic bases.
Borchi®Gel AP	W/S	Phosphate ester condensation polymer	100%	Excellent wettability of inorganic pigments and fillers
Borchi®Gel 0650	W/S	Amine neutralized phosphate ester	100%	*Does not contain volatile organic compounds (VOC) and alkylphenol polyoxyethylene ethers (APEO); *Specially designed to stabilize fillers and materials with polar surfaces, such as titanium dioxide, iron oxides and hydrophilic organic pigments, in water-based and solvent-based systems; *Provides low viscosity colorants and can significantly improve the tinting strength of the colorants.
Borchi®Gel 0451	W/S	PU(Polyurethane)	100%	*Free of volatile organic compounds (VOC) and alkyl phenol polyoxyethylene ether (APE0); specifically used in water-based systems to disperse difficult-to-handle organic pigments and carbon black. *Provide low viscosity, high transparency organic color paste, excellent blackness carbon black paste, and long-term dispersion stability.
Borchi®Gel 1252	W/S	Acrylate copolymer	100%	Contains no volatile organic compounds (VOCs) and alkylphenol oxyethylene ethers (APEO); non-ionic. It has good dispersion of organic pigments and inorganic pigments, especially suitable for wood paint, decorative paint, industrial paint and general color paste.
Borchi®Gel 0755	W/S	PU(Polyurethane)	100%	*Does not contain volatile organic compounds (VOC) and alkylphenol oxyethylene ethers (APEO). *Recommended for dispersing difficult-to-disperse organic pigments and carbon black in solvent-based systems; has broad compatibility: can be used with nitrocellulose. *Provide low viscosity, high transparency organic pigment dispersions, high demand carbon black slurries, and have long-term dispersion stability.
Borchi®Gel 1051	W	PU(Polyurethane)	45% solid content, solvent BAC/MPA	*Specially designed for dispersing organic blue, green and red pigments in solvent-based systems. *Provide low viscosity color pastes with high transparency and long-lasting dispersion stability.
Borchi®Gel 1750	S	PU(Polyurethane)	40% solid content, solvent water	*Universal dispersant for water-based systems, which can effectively disperse inorganic pigments and fillers, transparent iron oxide, organic pigments and carbon black. *Good viscosity reduction in co-grinding systems. *Does not affect the salt spray and water resistance of the system.
Borchi®Gel 1757	W/S	Polymers with pigment affinity groups	100%	*Does not contain volatile organic compounds (VOC); mixed wetting and dispersing agent, capable of dispersing and stabilizing various pigments. *Used to disperse a variety of rhodium vanadate pigments to provide vibrant colors and excellent coverage.

Rheology Modifier

Association thickener based on polyurethane (PU)

Borchers additive	System*	Chemical Composition	Activity%	Description
Borchi®Gel 0620	W	Low shear/very strong pseudoplasticity	40% Water/Ethylene glycol butyl ether(40%PU)	*Free of tin, volatile organic compounds (VOCs) and alkylphenol oxyethylene ethers (APEO); used in the lower shear range of aqueous systems to improve viscosity stability and enhance rheological properties. *Able to apply thick coating on vertical surfaces, effectively preventing sagging and not causing yellowing and chalking of the paint film.
Borchi®Gel 0621	W	Low shear/very strong pseudoplasticity	30% solid, water(20% PU)	*Free of tin, volatile organic compounds (VOCs) and alkylphenol oxyethylene ethers (APEO); used in the lower shear range of aqueous systems to improve viscosity stability and enhance rheological properties. *Able to apply thick coating on vertical surfaces, effectively preventing sagging and not causing yellowing and chalking of the paint film.
Borchi®Gel 0630	W	Low shear/very strong pseudoplasticity	25% Water/Dipropylene glycol methyl ether (25%PU)	* Free of tin, alkylphenol polyoxyethylene ether (APEO) and emulsifiers; It is used for lower shear temperature of water-based systems to improve viscosity stability and rheological properties. * Can apply thick coating on the heavy straight surface, effectively prevent flow hanging, will not cause yellow film and cause powdering. * Free of ethylene glycol butyl ether.
Borchi®Gel PW 25	W	Low shear/strong pseudoplasticity	25% solid,water/propylene glycol (25% PU)	*Contains no emulsifier; has a good thickening effect in water-based systems and most fine particle dispersions with low emulsifier content. *Due to its high water retention capacity, the paint has a long open time.
Borchi®Gel THIX 921	W	Low shear/Pseudoplasticity	32% solid, water/Propylene glycol (25% PU)	*Thixotropic, shear thinning. * Helps improve the storage stability of coatings, and improves the leveling and application performance of coating formulations.
Borchi®Gel 0625	W	Low shear/Pseudoplasticity	34% solid,Water(25% PU)	*Does not contain volatile organic compounds (VOC) and alkylphenol polyoxyethylene ethers (APEO); mainly improves the viscosity stability of water-based coating systems and improves rheological properties in the medium and high shear range. *Improve storage stability, leveling and construction performance.
Borchi®Gel L75N	W	Low shear/Pseudoplasticity	50% solid,Water(25% PU)	*Does not contain volatile organic compounds (VOC) and alkylphenol polyoxyethylene ethers (APEO); mainly improves the viscosity stability of water-based coating systems in the medium shear range and has good pigment wettability. *Improve the performance of brush and roller coating without causing yellowing and powdering of the paint film.
Borchi®Gel 0434	W	High Shear/Newtonian Fluids	20% solid,Water(20% PU)	*Free of Volatile Organic Compounds (VOCs) and Alkyl Phenol Ethoxylates (APEO): Recommended for use in latex dispersions and water-based coating systems in the high shear range. *Increase the dramatic coating viscosity (ICI viscosity), reduce splashing during roller coating, and give superior flow and leveling properties.
Borchi®Gel 0435	W	High Shear/Newtonian Fluids	50% solid,Water(30% PU)	* Free of alkyl phenol polyoxyethylene ether (APEO); Developed excellent brush/roll application performance and high shear thixotropy for waterborne series. * Mainly provides viscosity stability at higher shear temperatures.

Non-associative thickener

Borchers additive	System*	Chemical Composition	Activity%	Description
Borchi®Gel A LA	W	Low shear/strong Pseudoplasticity	10% anionic acrylate polymer water solvent	*Alkylphenol oxyethylene ether (APEO) free. *When pH>8, viscosity builds in the low shear range and the aqueous phase thickens.
Borchi®Gel PN	W	Low shear/strong Pseudoplasticity	Zirconium complex, neutralized with ammonia	*For use in water-based coating systems containing hydroxyl and carboxyl groups. *Builds viscosity in the low shear range to prevent sagging and settling; improves coating viscosity stability after tinting with universal colorants; no biocides required.
Borchi®Gel NA	W	Low shear/strong Pseudoplasticity	Zirconium complex, neutralized with sodium hydroxide	*Volatile organic compound (VOC)-free emulsifier and alkylphenol polyoxyethylene ether (APEO) provide thixotropy, shear thinning; used in water-based coating systems containing hydroxyl and carboxyl groups. *After mixing with universal colorants, the viscosity stability of the paint is improved; it does not contain any odor.
Borchi®Gel 134	S	Low shear/strong Pseudoplasticity	25% modified alkyd resin and solvent mixture	*Anti-settling agent for solvent-based systems containing high-density pigments. *Suppresses hard settling of coatings and is easy to cooperate with high-shear dispersing equipment.
Borchi®Gel Thixo 2	S	Low shear/strong Pseudoplasticity	————	*Enhance non-polar or weakly polar solvents to enhance the thixotropy of coatings. *Reduce the floating and blooming of pigments and promote the dispersion of pigments during the manufacturing process.

Flow and leveling additives

Borchers additive	System*	Chemical Composition	Activity%	Description
Borchi®Gel 1570	W/S	Modified polydimethylsiloxane (PDMS)	100%	*When used in conjunction with Borchi®GolLA 2 or Borchi®Gol LA 232, it can improve the wettability and slipperiness of difficult-to-coat surfaces or oily substrate surfaces *Prevents the formation of surface defects such as shrinkage cavities and pinholes; does not contain volatile organic compounds (VOC)
Borchi®Gel 1670	S	PDMS(polydimethylsiloxane)	100%	*Reduce surface tension *Prevent the formation of floating blooms and Bernard vortices
Borchi®Gel 1375	W/S	Silicone-free blend of ethoxylated alcohols and surfactants	N/A	*Free of VOC and APEO; Recommended for water-based and solvent-based systems, especially for oily and difficult to wet substrates
Borchi®Gel LA 2	W/S	Polyether modified, polysiloxane (PDMS)	100%	*Does not contain volatile organic compounds (VOC), reduces surface tension and has good stain and scratch resistance, and increases anti-adhesion properties *Prevent surface defects and improve final film appearance
Borchi®Gel LA 50	W/S	Modified polydimethylsiloxane (PDMS)	50%, dissolved in dipropylene glycol monobutyl alcohol	*Reduce surface tension and prevent surface defects on non-polar substrates *Can be used with Borchi@Gol LA 2 for better slipperiness
Borchi®Gel LA 200	W/S	Polyether modified polysiloxane (PDMS)	100%	*Contains no volatile organic compounds (VOC); improves substrate wettability, anti-adhesion and scratch resistance *Quickly remove air bubbles on the coating surface and prevent microbubbles from forming during all production stages
Borchi®Gel LA 232	W/S	Polyether modified polysiloxane (PDMS)	100%	*Contains no volatile organic compounds (VOC); reduces surface tension, increases surface slippery and improves anti-adhesion and scratch resistance *Quickly remove bubbles on the surface of the coating film to provide a smooth surface
Borchi®Gel 8701	S	Non-silicon	50%, dissolved in propylene glycol methyl ether acetate	*Specially designed for solvent-based coatings *Improve substrate wetting and leveling, excellent slipperiness does not affect interlayer adhesion
Borchi®Gel LAC 80	W/S	Polyether modified polysiloxane (PDMS)	100%	*Does not contain volatile organic compounds (VOC); provides excellent leveling properties and significantly increases the surface smoothness of the paint film; good anti-adhesion properties *Prevents the formation of shrinkage cavities and prevents hammer paint bleeding to a large extent
Borchi®Gel 1473	W/S	Polyether modified polysiloxane (PDMS)	100%	*Contains no volatile organic compounds (VOCs); recommended for solvent-based and water-based topcoats curing at room temperature and below 150°C, as well as solvent-free series *Improve surface smoothness by reducing orange peel and shrinkage cavities
Borchi®Gel 1474	W/S	Polyether modified polysiloxane (PDMS)	100%	*Contains no volatile organic compounds (VOCs); improves flow, leveling, slip and scratch resistance *Inhibit the formation of surface defects such as shrinkage cavities and pinholes
Borchi®Gel PL	S	Phenolic modified polydimethylsiloxane (PDMS)	100%	*Contains no volatile organic compounds (VOC); eliminates shrinkage cavities and other surface defects caused by poor leveling of can and coil paint; resistant to 300°C high temperature *Effective leveling accelerator with good compatibility with most resins
Borchi®Gel LA 6	S	Modified polydimethylsiloxane (PDMS)	12%, soluble in xylene	*Provide stronger substrate wettability, reduce surface tension, and provide anti-adhesion and slippery properties *Suppress surface defects
Borchi®Gel OL 17	W/S	Polyether modified polysiloxane (PDMS)	100%	*Contains no volatile organic compounds (VOCs); improves flow, leveling, slip and scratch resistance *Inhibit the formation of surface defects such as shrinkage cavities and pinholes

High performance cobalt-free drier

Borchers additive	System*	Chemical Composition	Description
Borchi®OXY-Coat Oxy-Coat	W/S	Organometallic complex	*Improved drying activity (under standard and adverse conditions), color, gloss and haze compared to cobalt driers in aqueous and solvent-based systems *Based on unique highly active complex
Borchi®OXY-Coat 1101	W	Organometallic complex	*Contains no volatile organic compounds (VOC); improved drying activity (under standard and adverse conditions), color gloss and haze compared to cobalt driers *Based on unique highly active iron complex *Solvent is water
Borchi®OXY-Coat 1410	W/S	Organometallic complex	*Suitable for high solid systems and composite materials *Based on a unique highly active iron complex *The solvent is propylene glycol
Borchi®OXY-Coat 1510	W	Organometallic complex	*Contains no volatile organic compounds (VOC); compared to cobalt driers, it improves drying activity, color, gloss, and haze Based on unique highly active complex *Ideal for water-based coating systems *Excellent performance under adverse drying conditions

Anti-skinning agent

Borchers additive	System*	Chemical Composition	Description
Ascinin®Anti Skin 0445	W/S	Amino compounds are soluble in 1,2-propanediol	*Free of phenol and methyl ethyl ketoxime (MEKO); recommended for use with cobalt replacement additive Borchi® OXY-Coa *Delay the drying of the surface layer and keep the paint film open longer to ensure that oxygen can penetrate into the inner layer of the paint film to improve solid drying and improve fluidity
Ascinin®Anti Skin 0444	S	Amino compounds are soluble in fatty acid esters	*Free of phenol and methyl ethyl ketoxime (MEKO); recommended for use with cobalt replacement additive Borchi® OXY-Coat. *Delay the drying of the surface layer and keep the paint film open longer to ensure that oxygen can penetrate into the inner layer of the paint film to improve solid drying and improve fluidity.
Borchi®Nox C3	S	Cyclohexanone oxime	Anti-skinning agent, especially suitable for printing inks
Ascinin®Anti Skin 1240	S	Amino compounds are soluble in fatty acid esters	* Specially designed for oxidation drying coating systems and slurries with low volatile organic compound (VOC) content * MEKO free: Recommended for use with Borchi®OXY-Coa cobalt substitute additive
Borchi®Nox 1640	S	Cyclohexanone oxime	*Does not contain methyl ethyl ketone oxime *Will not cause discoloration or adversely affect the drying time of the coating system *Solvent is propylene glycol
Borchi®Shield	S	Amine/oxime compounds are dissolved in fatty acid esters	*Does not contain methyl ethyl ketone oxime *It has a synergistic effect with Borchi®Dragon complex products, which can delay surface drying in high-solid alkyd systems to achieve better oxidative drying, and is effective even in thicker coatings.

Ca

Dryer	Metal content	Chemical Composition	Description
Octa-Soligen®Calcium 4, basic	4% Ca	Non-isooctanoic acid	Petroleum solvent D60
Octa-Soligen®Calcium 10, basic	10% Ca	Non-isooctanoic acid	Petroleum solvent D60
Octa-Soligen®Calcium 7 HS,neutral	7% Ca	Isocaprylic acid salt	Fatty acid ester, no volatile organic compounds (VOC)

Co

Dryer	Metal content	Chemical Composition	Description
Borchers®Deca Cobalt 10	10% Co	Neodecanoic acid	Petroleum solvent
Octa-Soligen®Cobalt 10	10% Co	Isocaprylic acid salt	Petroleum solvent
Borchers®Deca Cobalt 12	12% Co	Neodecanoic acid	Petroleum solvent
Octa-Soligen®Cobalt 12	12% Co	Isocaprylic acid salt	Petroleum solvent
Octa-Soligen®Cobalt 8(oil)	8% Co	Isocaprylic acid salt	Oil
Octa-Soligen®Cobalt 12(oil)	12% Co	Isocaprylic acid salt	Oil
Borchers®Deca Cobalt 7 aqua	7% Co	Neodecanoate	Water dispersible oil
21% Cobalt Hydroxy Ten-Cem®	21% Co	Neodecanoate	Drying stabilizer for oxidative drying coating systems; dispersion of cobalt hydroxide in organic cobalt salts, dissolved in petroleum solvents

Mn

Dryer	Metal content	Chemical Composition	Description
Borchers®Deca Manganese 8	8% Mn	Neodecanoate	Petroleum solvent
Octa-Soligen®Manganese 10(oil)	10% Mn	Isocaprylic acid salt	Oil
Borchers®Deca Manganese 8 HS	8% Mn	Neodecanoate	Fatty acid esters, no volatile organic compounds (VOC)
Octa-Soligen®Manganese 10 HS	10% Mn	Isocaprylic acid salt	Fatty acid esters, no volatile organic compounds (VOC)

Zn

Dryer	Metal content	Chemical Composition	Description
Octa-Soligen®Zinc 12	12% Zn	Isocaprylic acid salt	Petroleum solvent
Octa-Soligen®Zinc 23	23% Zn	Isocaprylic acid salt	Solvent-free
Borchers®Deca Zinc 10 aqua	10% Zn	Neodecanoic acid	Water dispersible oil
Borchers®Deca Zinc 11/12	11-12% Zn	Neodecanoic acid	Paraffin oil

Zr

Dryer	Metal content	Chemical Composition	Description
Borchers®Deca Zirconium 15	15% Zr	Neodecanoic acid	Petroleum solvent
Octa-Soligen®Zirconium 18	18% Zr	Isocaprylic acid salt	Petroleum solvent
Octa-Soligen®Zirconium 24	24% Zr	Isocaprylic acid salt	Petroleum solvent
Octa-Soligen®Zirconium 12 HS	12% Zr	Isocaprylic acid salt	Fatty acid esters, no volatile organic compounds (VOC)
Borchers®Deca Zirconium 15 HS	15% Zr	Neodecanoic acid	Fatty acid esters, no volatile organic compounds (VOC)
Octa-Soligen®Zirconium 18 HS	18% Zr	Isocaprylic acid salt	Fatty acid esters, no volatile organic compounds (VOC)
Octa-Soligen®Zirconium 10 aqua	10% Zr	Isocaprylic acid salt	Water dispersible oil

Other Metals

Dryer	Metal content	Chemical Composition	Description
7%AOC E	7% Al	Aluminum	Petroleum solvents and glycol ethers
Borchers®Deca Barium 12.5	12.5% Ba	Neodecanoic acid	Petroleum solvents
Borchers®Deca Lithium 2	2% Li	Neodecanoic acid	Petroleum solvents
Octa-Soligen®Strontium 10	10% Sr	Isocaprylic acid salt	Petroleum solvents
Octa-Soligen®Iron 7/8 HS	7/8% Fe	Isocaprylic acid salt	Fatty acid esters, no volatile organic compounds (VOC)
12% Cerium Hex-Cem®	12%Ce	Isocaprylic acid salt	————

Mixed Metals

Dryer	Metal content	Chemical Composition	Description
Octa-Soligen®27	Co,Ca,Zr	Isocaprylic acid salt	Petroleum solvents
Octa-Soligen®69	Co,Zr	Isocaprylic acid salt	Petroleum solvents
Octa-Soligen®173	Co,Ba,Zr	Isocaprylic acid salt	Petroleum solvents
Octa-Soligen®69 HS	Co,Zr	Isocaprylic acid salt	Fatty acid esters, no volatile organic compounds (VOC)
Octa-Soligen®123 aqua	Co,Ba,Zn	Isocaprylic acid salt	Water dispersible petroleum solvent
Octa-Soligen®421 aqua	Co,Zr,Zn	Isocaprylic acid salt	Water dispersible oil

Dehydrating agent

Borchers additive	System*	Chemical Composition	Activity%	Description
Additive OF	S	Triethyl orthoformate	100%	*Eliminates moisture in solvent-borne one- and two-component polyurethane coatings during shelf life *Compatible with most polyol and isocyanate components
Additive TI	S	P-Toluenesulfonyl Isocyanate	100%	*Remove moisture introduced by solvents, pigments and fillers during production of one- and two-component polyurethane systems *Low viscosity, monofunctional isocyanate, which reacts chemically with water to form inert amides

Catalyst

Polyurethane

Product	Metal content	Description
Borchers®LH 10	1.8% Sn	*Specially designed for water-based two-component polyurethane coatings *Accelerate the cross-linking process and increase the drying speed of the chemical curing system
Borchi®Kat 28	28% Sn	*Tin catalyst for the synthesis of monocarboxylic acids; catalyst for one- and two-component reactions; used in coatings and polyurethane foams; used in the synthesis of (unsaturated) polyesters; used in silicone resins and polyurethane alkyd resins.
Borchi®Kat 315	16% Bi	*Solvent-free: Designed for one- and two-component polyurethane systems and RTV silicones *Accelerate the chemical reaction between polyol and isocyanate components in the polyurethane foam system
Borchi®Kat 315 EU	16% Bi	*Solvent-free: Designed for one- and two-component polyurethane systems and RTV silicones *Accelerate the chemical reaction between polyol and isocyanate components in the polyurethane foam system
Borchi®Kat 24	24% Bi	*Solvent-free; designed for one- and two-component polyurethane systems *Accelerates the chemical reaction between alcohol and isocyanate components in polyurethane coating systems to optimize drying properties
12%Cobalt Catalyst 510	12% Co	*Cobalt accelerator was developed to meet the special needs of the unsaturated polyester resin industry; used with organic peroxide catalysts; soluble in petroleum solvents
Octa-Soligen®Cobalt 10(xylene)	10% Co	*Cobalt catalyst; polyester system accelerator: soluble in xylene
Octa-Soligen®Cobalt 12(xylene)	12% Co	*Cobalt catalyst; polyester system accelerator: soluble in xylene
Borchers®Deca Cobalt 10(xylene)	10% Co	*Cobalt catalyst; polyester system accelerator: soluble in xylene
Borchers®Deca Copper 8	8% Cu	*Copper neocaprate is soluble in petroleum solvent; Extend construction time and reduce the heat release peak of the unsaturated polyester formula
15% Potassium Hex-Cem® EU	15% K	*Specially used for stable potency period of unsaturated polyester resin and two-component polyurethane system *Potassium 2-ethylcaproate is dissolved in diethylene glycol, which combines with cobalt to increase the dryness and improve discoloration of the unsaturated polyester dissolved in styrene, ultimately requiring less cobalt in the system
Borchi®Kat 15	15% Zn	*Catalyst based on zinc neodecanoate, moderately reactive for environmentally friendly solvent-borne one- and two-component polyurethane coatings and other chemical systems. *Diluted in dearomatized petroleum solvent
Borchi®Kat 0761	15% Zn	*Catalyst based on zinc neodecanoate, moderately reactive for environmentally friendly solvent-borne one- and two-component polyurethane coatings and other chemical systems. *Dilute in fatty acid esters
Borchi®Kat 22	22% Zn	* Tin free, volatile organic compound (VOC) free and solvent-free metal-carboxylate catalysts with moderate reactivity for one - and two-component polyurethane coatings and chemical synthesis in solvent-based and solvent-free systems
Borchi®Kat 0243	Bi, Li	*Mixed metal carboxylate, tin-free, VOC-free and solvent-free catalyst for polyurethane reactions *It is particularly suitable for solvent-based and solvent-free one - and two-component polyurethane transparent coatings, two-component polyurethane adhesives, and for silicone modification
Borchi®Kat 0245	Zn,Ca	*Tin-free, moderately active metal carboxylate catalyst, especially suitable for solvent-based one- and two-component polyurethane paints *Soluble in xylene
Dibutyltin Dilaurate	Sn	*Dibutyltin dilaurate *Two-component polyurethane catalyst

Special additives

Adhesion Promoter

Borchers additive	System*	Chemical Composition	Activity%	Description
Borchi® Gen HMP-F	W/S	Oil-free polyester resin	80% soluble in mixed solvents	*Recommended for baking paints in water-based and solvent-based systems *Improve coating adhesion on metal substrates
Borchie® Gen HE	S	Oil-free polyester resin	60% soluble in xylene	*Recommended for solvent-based paints *Improve the adhesion of the coating on the metal substrate, help the arrangement of aluminum powder in the paint film, prevent silver from falling off, and have good stability

Protective Agent

Borchers additive	System*	Chemical Composition	Activity%	Description
Bayoxide® Z active	W/S	Zinc oxide	100%	*Improve the drying performance of the paint film, and improve the anti-corrosion performance and hardness *Reduce coating yellowing and enhance UV stability

BRUNO BOCK
THIOCHEMISTRY BROUGHT TO LIFE

BRUNO BOCK Group is a global leader in providing high-quality organic sulfur solutions for various applications. Our vision is to become the preferred global partner in sulfur chemistry by utilizing our professional knowledge and all the inherent added value of sulfur chemistry.

Thiol olefin system

Product brand NO.	Description	Thiol functionality	Molecular Weight (g/mol)	Active hydrogen equivalent[1] (g/mol)	Sulfenyl content[1] (%)	Viscosity[1*2] (mPa·s)
Thiocure® 320	Low viscosity bifunctional polymercaptan used as a reactive diluent or toughener in coatings, adhesives and sealants	2	238.3	122-125	26.8	-10
Thiocure® 330	Low viscosity and highly reactive trifunctional polythiol,compared to Thiocure® 340, suitable for fast curing systems with low cross-link density	3	398.6	136-140	24	-150
Thiocure® 430	Low viscosity and highly reactive trifunctional polythiol,compared to Thiocure® 340, suitable for fast curing systems with low cross-link density	3	398.6	136-140	24	-150
Thiocure® 331	Trifunctional polythiol with isocyanurate backbone for improved adhesion on mineral and metal substrates	3	525.6	180-184	18.4	-400
Thiocure® 340	Highly reactive and high cross-link density tetrafunctional polythiol for improved mechanical properties and chemical stability	4	488.6	125-128	26	-400
Thiocure® 340L	Low odor version of Thiocure® 340L	4	488.6	125-128	26	-400
Thiocure® 340SL	Low reactivity Thiocure®340 is recommended for isocyanate systems	4	488.6	125-128	26	-400
Thiocure® 440	Highly reactive and high cross-link density tetrafunctional polythiol for improved mechanical properties and chemical stability	4	488.6	125-128	26	-400
Thiocure® 360	Hexafunctional polythiol with extremely high cross-link density	6	783.1	135-140	24.1	-2000
Thiocure® 332	Polyether trifunctional polythiol, used in flexible formulations or used as a toughening agent in combination with Thiocure®340/Thiocure®330	3	-700	236-262	13.5	-200

Thiol olefin system

Product brand NO.	Description	Thiol functionality	Molecular Weight (g/mol)	Active hydrogen equivalent[1] (g/mol)	Sulfenyl content[1] (%)	Viscosity[1*2] (mPa·s)
Thiocure® 333	Polyether trifunctional polythiol has higher flexibility than Thiocure® 332	3	-1300	435-448	7.1	-400
Thiocure® 341	Tetrafunctional polythiol with polycaprolactone structure has better hydrolysis resistance and UV stability than Thiocure® 332	4	-1350	348-375	9.1	-1000

1.The above typical values should not be regarded as product specifications;
2.Viscosity: rotational viscometer DIN53019, 20℃

Chain transfer agent - Non-water soluble

Product brand NO.	Description	Molecular Weight (g/mol)	SH-Content (% w/w)	SH-Functionality	Functional group type (Grade)
EVABOPOL®196D	Low odor CTA for emulsion polymerization	204,3	16,1	1	1
EVABOPOL®198D	Low odor CTA for emulsion polymerization	205,1	16,0	1	1
EVABOPOL®394	Low odor CTA for emulsion polymerization	162,3	20,3	1	1
EVABOPOL®496	Low odor CTA for emulsion polymerization	218,4	15,1	1	1
EVABOPOL®498	Low odor CTA for emulsion polymerization	219,1	15,0	1	1
EVABOPOL®120	Difunctional CTA, used to make acrylic	210,3	29,9	2	1

Chain transfer agent - water soluble

Product brand NO.	Description	Molecular Weight (g/mol)	SH-Content (% w/w)	SH-Functionality	Functional group type (Grade)
EVABOPOL®100	Acidic CTA, used in the production of water reducing agents	92,1	35,5	1	1
EVABOPOL®300	Acidic CTA, used in the production of water reducing agents	106,1	30,8	1	1
EVABOPOL®400	Acidic CTA, used in the production of water reducing agents	106,1	30,8	1	1
EVABOPOL®500	Acidic CTA	106,1	30,8	1	1
EVABOPOL®1400	Neutral CTA	108,1	30,5	1	1
EVABOPOL®SEM	Acid reactive comonomer, emulsion polymerization stabilizer	194,2	n.a.	n.a.	n.a.

Sibelco, Headquarter located in Belgium, has more than 140 years of mineral mining experience. Its bussiness throughout 41 countries on 5 continents and it owns more than 200 production bases all over the world.

Product Name	ITEM NO	Country of Origin	D50 (μm)	Hardness	Whiteness	Oil absorption (g/100g)	Specific surface area (m^2/g)	PH	Proportion (g/cm^2)
Cristobalite (Sibelite)	M3000	Belgium	17	6.5	98	25	1.5		
	M3500		10			26		9	2.3
	M6000		4			26	5		
Glass powder (Unibrite G)	G320	Korea	13	5	90	20	1.3	7.5-8.5	2.38
	G500		6.5		90	28	2.4		
	G2000		2		93	36	5		
Soft glass powder (Siltech)	G20-C	Taiwan	20	5	90	24	2	7.5-8.5	2.38
	G6-C		6.5		90	28	2.4		
	G2-C		2		93	36	5		
Minex	2	Canada	14.3	6	85	22.5			
	7		3.5		85	31			
	10		2.1		89				
Nepheline (Minbloc)	HC500	USA	2.99	5.8	88-89	3.5		2.6	2.61
	HC1400		6.74			2.5			
	HC2000		9.4			1.2			
	HC2100		11.4			1			
Crystalline quartz powder	CA-0020	Korea	2	7.5	94	25		5.4	2.65
	CA-0040		3.8		94.1	21		5.7	

Product Name	ITEM NO	Country of Origin	D50 (μm)	Hardness	Whiteness	Oil absorption (g/100g)	Specific surface area (m^2/g)	PH	Proportion (g/cm^2)
Crystalline quartz powder	702	Taiwan	21.14	7		18	0.5	6.9-7.2	2.65
	703		13.3			21	0.8		
	704		9.39			22	1.9		
	915		3		93	30	4.2		
	925		1.6		93.5	35	7.8		
Potassium feldspar (FELDSPAR)	PG-K3CK	Indonesia	3.5	6	90	30.4			
	PG-K5CK		18.3		88	30.2		8.8	2.56
	PG-K7CK		23.1		86	30.2			
Aluminium Hydroxide	SG 10 LSA	Italy	3.5			17	5		
	SG 25 LSA		5		98.5	17	4		
	SG 7 HB	Netherlands	2.3	3		27	10	9	
	SG 10		3.8		98	27	7		
	SG 25		8		97.5	21	4		
	SG 100X		13			10	1.4		
	SG 200X		6~14			9	1.3		
Crystalline quartz powder	PG40	Malaysia	23.6	7	83	26		6.9	2.65
	PG20		21.8		84	28		6.8	
	PG15		14.8		85	29		6.7	
	PG12		13.3		86	30			
	PG5		5		88	32			

Product Name	ITEM NO	Country of Origin	D50 (μm)	Hardness
Albite (FELDSPAR)	PG-F5	Malaysia	5.2	6
	PF-F7		7.1	

Whiteness	Oil absorption (g/100g)	Specific surface area (m^2/g)	PH	Proportion (g/cm^2)
84	27	2.98	10.3	2.61
		2.34		

Product Name	ITEM NO	Total Solids Content (100%)
Latex Glove Filler ESD	ESD 086A	45

PH	Viscosity (Dilute 30% solids)	Proportion (g/cm^2)
11	60	1.38

SYNTHRON

SYNTHRON is a global well-known manufacturer of additives with over 80 years of history. SYNTHRON's products such as leveling agents, wetting dispersants, anti-corrosion agents, anti flash rust agents, catalysts, conductive/antistatic agents, etc. have always been at the forefront of the world, and it is also one of the largest manufacturers of acrylic leveling agents in the world.

Product Type	ITEM NO	Type	Characteristic	System
Degassing Agent	561PL	Phosphate esters	Remove and eliminate difficult-to-eliminate small air bubbles insidethe paint film\PU epoxy two-component	W
	941PL		Remove and eliminate difficult-to-eliminate small air bubbles inside the paint film	W/S/UV
Levelling Agent	PW336	Acrylic	Prolongs the opening time of the paint film, which is beneficial to deaeration and drying, mirror effect, and no orange peel phenomenon	W
	PW363		Prolongs the opening time of the paint film, which is beneficial to deaeration and drying, mirror effect, and no orange peel phenomenon,Paint film stays open longer.	W
Wetting Agent	SW452	Silicone	Low foam, low surface tension, alkali-resistant formula, more suitable for metal substrates	W
	X-074	Cation	It has dispersing and degassing properties	W
	X-043	Non-Silicone	It has degassing properties, good overall performance, and is more suitable for woodware	W/S/UV
	X-080		Instead of 3777, non-silicon	S
Dispersing Agent	A987	Acrylic	Inorganic pigments and fillers are hydrophobic, improve water resistance, wash resistance, etc. You can use less thickener	W
	W578		Inorganic pigments and fillers are hydrophobic, improve water resistance, wash resistance, etc. You can use less thickener	W
	W600		Commonly used in both inorganic and organic pigments and fillers, carbonated titanium dioxide can be ground into a blue phase	W
	8907		For organic pigments, good color display, instead of TEGO760	W

Product Type	ITEM NO	Type
Rheology Additives	A300	Acrylic
Anti-flash Rust Agent	660B	
	670C	
	680C	
	08B	
	EVB	
Odor Masking Agent	MAS FGR	
	MAS BTMT	
	MAS DS series	
Formaldehyde Capture Agent	TF501	

Characteristic	System
For heavy pigments, the addition of 1-3% content can prevent settling and is unlikely to increase the thickness.	
It has good stability and can be added in the early stage	W
It has better moisture resistance and heat resistance than 660B, and is recommended for box paint	W
It has the function of rust transformation	W
Be used in acidic resins	W
Can prevent corrosion inside the tank (Prevent in-tank corrosion in metal tanks without protective coating within 3-6 months)	W
The principle of mutual cancellation of odors and the principle of non-fragrance masking makes the odor more acceptable	
Reaction type	
Reaction type, generally not released again, used in various water-based environments or used directly	W

IMERYS

Imerys is a world leading supplier of mineral based industrial specialty products, providing high value-added functional solutions for numerous industries from processing to consumer and construction products.
The Group utilizes its applied knowledge, scientific expertise, and technical expertise to provide solutions that benefit its mineral resources and produce synthetic minerals and develop formulas. Therefore, Imerys provides customers with necessary performance for their products , such as fire resistance, hardness, conductivity, opacity, durability, purity, brightness, filtration, absorption, and rejection.

Plastic

Product Name	ITEM NO
Monomix G	Microcrystalline talc powder can be used for nucleation and physical foaming
Jerfine 3CA	Ultra-fine talc, used by Sabic
HAR T84	Large layers of talcum powder in the HAR process can increase rigidity and have strong dimensional stability
Flex T10	With special talc to help prevent combustion
Carbital S	Nanoscale heavy calcium has better surface effect and high gloss
R7C	Talcum powder that has undergone surface modification has good performance in PC/ABS

Architectural Coating

Product Name	ITEM NO
Celite 499	Diatomaceous earth produced in the United States, used for matting in architectural coatings, a classic brand
Celite 499SP	Diatomite produced in Spain is used for matting in architectural coatings, and its whiteness is better than C499
C490（K288）	Domestic diatomite has poor matting but good surface effect
K287	Domestic diatomite, poor extinction performance
C95	Nano calcium carbonate slurry can partially replace Youchuang E in high PVC formulas
2550	A special perlite that can be used for color wiping, very good performance

Plastic

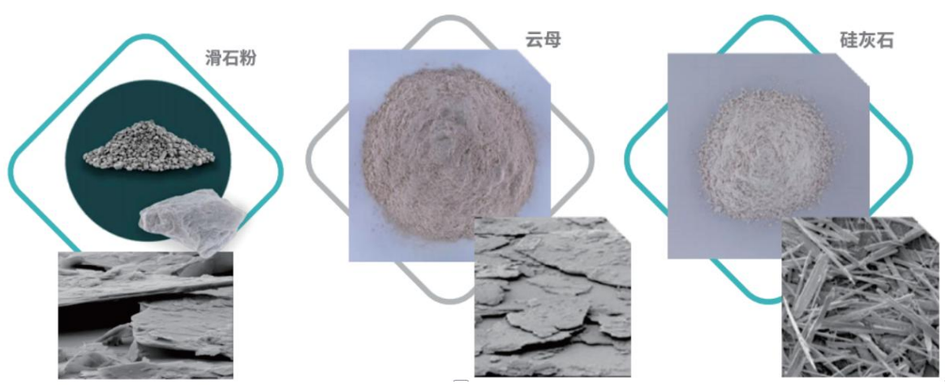
Product Name	ITEM NO
263LD	Imported diatomite used as opening masterbatch
Infilm 300	Domestic diatomite used as opening masterbatch

Industrial paints and inks

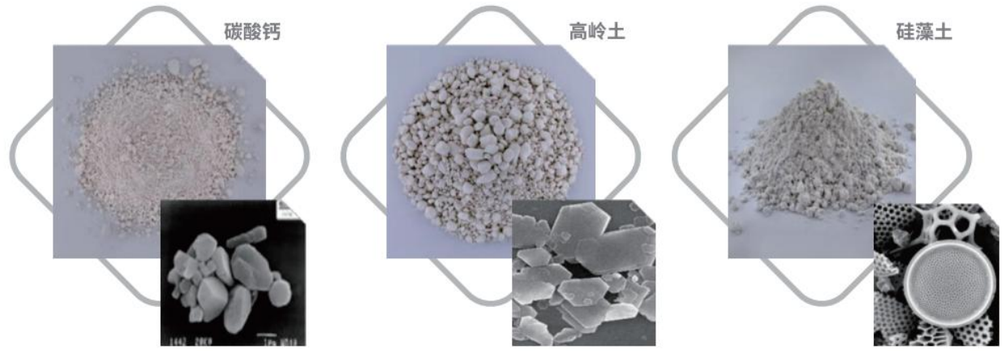
Product Name	ITEM NO
Monomix G	Microcrystalline talc powder ,it can be used in powder coatings
Steashield 10	Large layers of talc powder greatly improve the corrosion resistance and salt spray resistance of the paint film. It can be used in various industrial coatings to replace zinc phosphate, mica and kaolin.
kaolin	Various kaolin clays for industrial paints and inks
Talcum Powder	Various talc powders used in industrial paints and inks
Mica	High-performance mica for industrial paints

Architectural Coating

Product Name	ITEM NO
Clearlite 6	A special type of perlite with excellent transparency and certain matting ability. It can be used to make high-solid products in water-based wood paints.
Metastar 501	The special metakaolin with various effects such as weather resistance and corrosion resistance
UF90	0.2μm kaolin, it can be used to partially replace pigments or titanium white
Steashield 10	Large layers of talcum powder with excellent stain and graffiti resistance and can increase water permeability in exterior paints



Talcum Powder •$Mg_3Si_4O(OH)_2$ •Moh's hardness 1.0 •Lamellar Structure •d50,Particle Size Range:0.7～20μm	•Phlogopite & Muscovite: KMg,or $KAl_2(AlSi)O;(OH/F)_2$ •Moh's hardness:2.5-3.0 •Lamellar Structure •d50,Particle Size Range:5～40μm	Calcium Silicate: CaSiO •Provide needle-shaped products of different specifications •Moh's hardness:4.5 •Acicular Structure



$CaCO_3$ •Heavy ground calcium carbonate and light precipitated calcium carbonate •Moh's hardness:2.5-3.5 •FORM ◯Acicular(Coarse Whiting) ◯Acicular(Light Calcium) •D50,Coarse Whiting’ s particle size	Hydrated aluminum silicate: $ALSi_1O_3(OH)_4$ •Moh's hardness:2.5-4.5 •Lamellar Structure •D50,Particle Size Distribution:0.1～4μm	The main component is silica •Moh's hardness:=5.5-6.0 •FORM ◯An amorphous mineral with high adsorption properties, which varies according to the mineral source •D50,Particle Size Distribution:5~25μm

CLARIANT is a leading global specialty chemical company, headquartered in Mutenz, near Basel, Switzerland. In 2014, the company's sales exceeded 6.1 million Swiss francs. CLARIANT is composed of 110 group companies and currently employs over 17000 people.

CLARIANT's business activities are composed of seven business units, among which the "Special Industrial and Consumer Goods (ICS)" business unit mainly provides special chemicals and application solutions for consumer care and industrial markets.

Anionic Emulsifier

Product Type	Chemical Composition	Active Substance Content	Lonicity	Surface Tension	Characteristic
Emulsogen PF 20 S	Block copolymer ammonium sulfate	~50%	Anion	34.5	Used as an auxiliary, it can effectively improve the color development of coatings and textile applications.
Hostaphat 1306	Alkyl polyoxyethylene ether phosphate	~100%	Anion	26	It provides the anti-flash rust and corrosion resistance of the emulsion, has better adhesion to inorganic substrates, improves the dispersion ability of pigments and fillers, improves the density of the film, and has better particle size control.
Hostaphat 1308	Alkyl polyoxyethylene ether phosphate	~100%	Anion	27.7	It provides the anti-flash rust and corrosion resistance of the emulsion, has better adhesion to inorganic substrates, improves the dispersion ability of pigments and fillers, and improves the density of the film.

Nonionic emulsifier

Product Type	Chemical Composition	Active Substance Content	Lonicity	HLB	Surface Tension	Characteristic
Emulsogen LCN070	Alkyl polyoxyethylene ether	~70%	Nonionic	13	26	It is an environmentally friendly emulsifier that replaces alkyl phenol. It has a large adsorption area and strong ability to reduce surface tension, especially dynamic surface tension, which can quickly wet the substrate and provide good bonding effects.
Emulsogen LCN407	Alkyl polyoxyethylene ether	~70%	Nonionic	18	45	It is an environmentally friendly emulsifier that can replace alkyl phenol. It has a large adsorption area and strong ability to reduce surface tension. Provides emulsion with good polymerization, chemical, mechanical, freeze-thaw and other stability, and is easily soluble in cold water.
Emulsogen EPN118	Alkyl polyoxyethylene ether	~80%	Nonionic	15	30.2	Provides emulsion stability and can be used as an alternative to NP10
Genapol X 080	Alkyl polyoxyethylene ether	~100%	Nonionic	13	27.1	It is an environmentally friendly emulsifier that can replace alkyl phenol. It has a large adsorption area and strong ability to reduce surface tension. Provides emulsion with good polymerization, chemical, mechanical, freeze-thaw and other stability, and is easily soluble in cold water.
Genapol O 200	Alkyl polyoxyethylene ether	~100%	Nonionic	15	37.9	It is an emulsifier derived from natural products and is more environmentally friendly
Emulsogen TS 200	Polyaryl polyoxyethylene ethers	~100%	Nonionic	14	40	It is a nonionic emulsifier with rigid large steric hindrance groups, which can effectively improve the emulsion's resistance to water whitening and freeze-thaw resistance.

Wetting Agent

Product Type	Chemical Composition	Active Substance Content	Lonicity	Surface Tension	Characteristic
Emulsogen LCN070	Alkyl polyoxyethylene ether	~70%	Nonionic	26	Wetting agent for coatings, more suitable for adjusting the compatibility of white coatings and color pastes to reduce the problem of floating colors and blooming.
Emulsogen LCN407	Alkyl polyoxyethylene ether	~70%	Nonionic	45	Wetting agent for coatings. It has excellent wetting and suspending properties of titanium dioxide and inorganic fillers. It can reduce batch-to-batch differences caused by different shear forces in coating production and improve the low-temperature freezing and thawing of coatings' stability.
Genapol X 080	Alkyl polyoxyethylene ether	~100%	Nonionic	27.1	Wetting agent for coatings with excellent emulsifying properties to balance the compatibility between different hydrophilic and lipophilic substances. It is suitable for preparing wax emulsions and water-based modification of lipophilic substances.
Genapol ED 3060	Block Polyether	~100%	Nonionic	34	Color development enhancers or compatibilizers,it can improve the tinting properties of organic colors in coatings and have little impact on scrub resistance.
Genapol PF 40	Block Polyether	~100%	Nonionic	——	It is a low-foaming wetting agent that can reduce product bubbles during the coating preparation process.
Hostaphat 1306	Alkyl polyoxyethylene ether phosphate	~100%	Nonionic	26	It is wetting effect is fast and excellent. It can be used to improve the compatibility of inorganic colorants and architectural coatings and resist flash rust. It can be used in water-based industrial coatings.

Moisturizer

Product Type	Chemical Composition	Active Substance Content	Lonicity	Molecular Weight	VOC Content	Characteristic
Polyglykol G 300	Branched polyether polyols	~100%	Nonionic	300	<0.1%	Used for low VOC water-based colorants and coatings. Replaces ethylene glycol, propylene glycol and low molecular weight alcohol ethers, has better moisturizing properties
Polyglykol G 500	Branched polyether polyols	~100%	Nonionic	500	<0.1%	Used for low VOC water-based colorants and coatings. Replaces ethylene glycol, propylene glycol and low molecular weight alcohol ethers, has better moisturizing properties

Dispersant

Product Type	Chemical Composition	Active Substance Content	Lonicity	Solubility	Characteristic
Dispersogen PL20	Polyacrylic acid sodium salt	~40%	Anion	Soluble in water	It is a medium-high performance sodium salt dispersant with good viscosity reducing effect on inorganic pigments and fillers.
Dispersogen PL26	Polyacrylic acid sodium salt	~40%	Anion	Soluble in water	It is a medium-high performance sodium salt dispersant with good viscosity reducing effect on inorganic pigments and titanium dioxide.
Dispersogen HSW	Polyacrylic acid sodium salt	~40%	Anion	Soluble in water	It is an economical ammonium salt dispersant, more suitable for exterior wall coatings

In-tank fungicide

Product Type	Chemical Composition	Active Substance Content	Lonicity	Molecular Weight	VOC Content	Characteristic
Nipacide KBS	CMIT/MIT and Organobromine	Water Soluble	4-8	60	0.1%-0.3%	Highly efficient, broad spectrum, environmentally friendly, and It can be used in areas requiring EN71 and other standards
Nipacide BIT 10W	Benzisothiazolinone	Water Soluble	3-13	80	0.05%-0.3%	Efficient and broad-spectrum,long-lasting sterilization, temperature resistant, good pH resistance, no VOC, have FDA certified
Nipacide BIT 20	Benzisothiazolinone	Solvent type	3-13	100	0.05%-0.3%	Efficient and broad-spectrum,long-lasting sterilization, temperature resistant, good pH resistance.

5N PLUS is one of the world's largest producers of specialty metals and chemicals for high-end applications in the pharmaceutical, electronics and industrial industries.

Art.No.	Product Name	Molecular Structure	Particle Size	Appearance	Bulk Density	Density/Molecular Weight	Application Areas
LS grade	Bismuth Hydroxide	$BI(OH)_3$	2μm	White Powder	1g/cm³	appr.4.4g/cm³	Paint, Pigment
Citrate	Bismuth Citrate	$C_6H_5O_7BI$	1μm	Discolored Powder	0.4g/cm³	398.08	Drug
OVG	Rheostat Bismuth Oxide	Bi_2O_3	3.3μm	Yellow Powder	2-3g/cm³	8.5-9.4g/cm³	Coatings, Pigments, Fireworks, Cosmetics, Ceramics
OTG	Technical Bismuth Oxide	Bi_2O_3	6μm	Yellow Powder	3-6g/cm³	465.96	
OVGF	Fine varistor grade bismuth oxide	Bi_2O_3	1.6μm	Yellow Powder	2.2g/cm³	465.96	
OTF	Technology fine grade bismuth oxide	Bi_2O_3	3μm	Yellow Powder	2-4g/cm³	465.96	Pigment

Shanghai L.A. Chemical Science Co.,Ltd., is a technology oriented chemical new materials company, relying on continuously innovative technology and stable production to provide customers with more cost-effective and unique products and solutions. At present, the main products of Lanthanum Actinide include high-performance Photocuring colorants, special adhesion promoters, and special additives.

Highly adaptable pure UV color paste

Trademark	Pigment NO.	Description	Pigment Content	Lightfastness	Thermal stability	Acid resistance	Alkali resistance	Colour
L.A.9W012	PW6	High Coverage White	75%	8	——	——	——	
L.A.9W017	PW6	High Coverage Blue To White	60%	8	——	——	——	
L.A.9B001	PBK7	Blue Phase Black	20%	8	——	——	——	
L.A.9B008	PBK7	High Coverage Black	20%	8	——	——	——	
L.A.9R001	PR122	Magenta/Rose	12%	8	250	5	4-5	
L.A.9R002	PR146	Pure Red	18%	6	180	5	5	
L.A.9R005	PV19	Blue Phase Red	15%	7-8	250	5	4-5	
L.A.9R006	PR149	Highly Transparent Yellow Phase Red	10%	8	200	5	5	
L.A.9R008	PR254	Chinese Red	25%	8	200	5	5	
L.A.9R009	PR176	Bluish Phase Red	15%	7	200	5	5	
L.A.9R015	PR254	High Transparency Bright Red/Chinese Red	10%	8	200	5	5	
L.A.9R018	PV19	Blue Phase Red	15%	7-8	250	5	4-5	
L.A.9R021	PVX	Red Phase Purple	15%	7-8	200	5	5	
L.A.9R023	PRX	Dark Red	16%	8	250	5	4-5	
L.A.9R027	PR101	Transparent Iron Oxide Red	40%	8	350	5	5	
L.A.9Y001	PY151	Lemon Yellow	25%	8	200	5	3	
L.A.9Y002	PY180	Highly Transparent Yellow	25%	7-8	200	5	5	
L.A.9Y003	PO36	Red Phase Orange	25%	8	160	5	5	

Highly adaptable pure UV color paste

Trademark	Pigment NO.	Description	Pigment Content	Lightfastness	Thermal stability	Acid resistance	Alkali resistance	Colour
L.A.9Y005	PO37	Highly Vivid Yellow Phase Orange	18%	8	200	5	5	
L.A.9Y006	PY139	High Coverage Red Phase Yellow	20%	7-8	200	4	2	
L.A.9Y008	PY150	Highly Transparent Green Phase Yellow	20%	8	250	5	5	
L.A.9Y014	PY42	Transparent Iron Oxide Yellow	35%	8	350	5	5	
L.A.9S001	PB15:1	Red Phase Blue	20%	8	200	5	5	
L.A.9S002	PB15:4	Green Phase Blue	25%	8	200	5	5	
L.A.9S003	PV23	Purple	10%	7-8	250	5	5	
L.A.9S005	PB29	Ultramarine Blue	45%	8	350	1	2-3	
L.A.9S006	PB60	Deep Red Phase Blue	10%	8	200	5	5	
L.A.9S007	PV19	Red Phase Purple	15%	7-8	200	5	5	
L.A.9G001	PG7	Green	15%	8	200	5	5	
L.A.9N001	PB25	Brown	10%	7-8	250	5	4-5	

IBOA system high transparent color paste

Trademark	Pigment NO.	Description	Colour
L.A.9W252	PW6	Inkjet white	
L.A.9B282	PBK7	Highly transparent black	
L.A.9B241	PBK7	Inkjet black	
L.A.9R221	PR177	Highly transparent Ferrari red	
L.A.9G251	PG36	Highly transparent green	

Trademark	Pigment NO.	Description	Colour
L.A.9S271	PB15:4	Highly transparent blue	
L.A.9Y211	PY180	Highly transparent yellow	
L.A.9Y212	PY150	Inkjet yellow	

By selecting IBOA monomers and high-transparency, high-brightness pigments, and using inkjet technology, the impact of pigments on system performance and curing is minimized to the maximum extent.

Inkjet colorant

Trademark	Pigment NO.	Description	Pigment Content	Lightfastness	Colour
L.A.9W551	PW6	Inkjet white	65%	0.4	
L.A.9S275	PB15:4	Inkjet blue	20%	0.08	
L.A.9R225	PR122	Inkjet red	20%	0.18	
L.A.9Y215	PY150	Inkjet yellow	15%	0.08	
L.A.9B242	PBK7	Inkjet black	30%	0.08	

Wax Lotion

Trademark	Application Area	Advantages
LA SW62	Water-based art paint, wood paint, industrial baking paint water-based ink	It has excellent wear resistance, improves boiling resistance, and does not affect the permeability and gloss of the paint film. It can be used in industrial baking fields such as small household appliances and thermos cup coatings.
LA SW81		Applied in water-based coating systems, it can improve the orientation of effect pigments and reduce cloudy color spots/mottling, while also reducing the settling of coatings during storage and processing.
LA SW89		Provides hand feel for the paint film, improves wear resistance, weather resistance, waterproof and stain resistance, scratch resistance, anti-graffiti resistance, alcohol wipe resistance and other properties, and can not turn yellow. It is a product that can replace BYK539 and PTFE dispersion, and can also be used in conjunction with DC51.
LA SW93		It has good matting effect, is wear-resistant and scratch-resistant, and can not be seeding.
LA SW210		It is suitable for acids and alkalis,it is wear-resistant, scratch-resistant, and freeze-thaw resistant, and is suitable for sensitive baking paint systems.

Fluorinated surfactant

Trademark	Type	Advantages
LA-563	Water-soluble anionic surfactant	It can be completely soluble in water and strongly reduces surface tension. It has extremely low foaming, good chemical stability, and can be stable in acid and alkali systems of a certain strength, so it can be used as a long-lasting low-foaming wetting and leveling agent.
LA-587	Soluble in water and various organic solvents	It is completely free of PFOS and PFOA and has remarkable wetting, leveling and dispersing properties.

Phthalates

Trademark	Type	Advantages
LA Hi-3	Oily, UV	When used as an adhesion promoter: it can improve adhesion to metal and polyolefin materials; When used for pigment and filler treatment: it can improve the dispersion and anti-settlement of aluminum and silver pastes; it can also improve the adhesion and storage stability of metallic coatings and inks.
LA Hi-4	Water-based、Oily	It can be used as a cross-linking agent or a coupling agent. Its cross-linking speed is fast and the degree of cross-linking is easy to adjust, which can improve the temperature resistance of the glue.
LA Hi-5	Water-based、Oily	Suitable for acrylic, alkyd and other systems. It can be used as a dispersion stabilizer in non-black and white pigment systems, can prevent color floating, and has a synergistic effect with dispersants.
LA 01A	Oily	It breaks down in water. It is mainly used in transesterification reactions, and is also used as a cross-linking agent for medical adhesives and a catalyst for organic synthesis reactions. It can be used as a modifier for high-strength polyester paint and an additive for high-temperature resistant coatings, and can increase the use temperature to 500°C. It can also be used as an additive for rubber and plastic adhesives on metals.
LA 12A	Oily	It is soluble in a variety of organic solvents. It can smoke in moist air and decompose in water. It is mainly used as a catalyst for transesterification reactions and condensation reactions in organic synthesis. It can also be used as an adhesive between metal and rubber, and metal and plastic.

Adhesion Promoter

Trademark	Type	Advantages
M500	Oily	It is an adhesion promoter and cross-linking promoter for coatings, inks and adhesives. Compared with traditional single-molecule silane products, it can accelerate the cross-linking reaction and further improve the efficiency of silane use; in the formulation system of moisture curing and free radical cross-linking, it can accelerate the cross-linking reaction and reduce the water absorption of the polymer.
T-400	Oily	Used in UV ink or solvent-based baking paint systems to enhance the adhesion of paint films to plastic substrates such as PET. It can improve the initial and lasting adhesion of paint films or inks to substrates such as glass and plastic; it can improve the water resistance and heat and humidity resistance of coatings or inks; it can help improve the interlayer adhesion of inks and coatings.
3250	Water-based、Oily	It is an adhesion promoter for mobile phone glass ink, which can significantly improve the adhesion of the ink to the glass substrate and improve the alkali resistance and moisture and heat resistance of the oil. Compared with aminosilane, it has better high temperature color stability and can be used in white ink.
3700	Oily	It is used in UV and solvent-based baking paint systems to enhance the adhesion of paint films to glass and plastic substrates. It exhibits low yellowing properties at high temperatures; it can improve the solvent wiping resistance of paint films and improve the water resistance and heat and humidity resistance of coatings or inks; it can also help improve the interlayer adhesion of inks and coatings.
N300	Oily	It is used in UV and solvent-based baking paint systems to enhance the adhesion of paint films to glass and metal substrates. It has better resistance to high temperature and UV aging; it can improve the solvent wipe resistance of the paint film; it will not cause catalyst poisoning in the addition type silica gel system and has a viscosity-increasing effect on untreated PET substrates.
V207	Oily	It combines the advantages of liquid rubber and functional adhesion accelerator, maintains good cold resistance, and is suitable for adhesion promotion of flexible materials or coating systems and adhesives with drawing and extension requirements. Especially it shows good adhesion promotion effect on difficult-to-adhesion metal substrates.
N35	Oily	It is an excellent adhesion promoter and can be used in silicone, polyaminase, epoxy, acrylic adhesives and coating materials. It can improve the dispersion of pigments and improve the resistance of adhesives and coatings to glass, The adhesion of inorganic materials such as aluminum, iron, stainless steel, indium tin oxide, etc. is also suitable for adhesion promoters on non-corona PET, electroplated layers, and polyurethane coating surfaces.
LA 1019	Water-based、Oily	It is a highly active adhesion promoter with excellent water solubility and rapid reactivity, which can significantly improve the adhesion with glass, metal and various plastic substrates. It can quickly form a dense silicone film on the surface of metal substrates to improve salt spray resistance and water resistance.
LA 1218	Water-based	It has high reactivity and can be used as adhesion promoter, surface treatment agent, primer and modifier of organic resins. It can still provide adhesion in a normal temperature self-drying system. As an internal additive, it can significantly improve the alcohol resistance, salt spray resistance and water boiling resistance of the paint film.
LA2388	Water-based、Oily	It can significantly improve the adhesion with inorganic materials (such as glass, metal) and can provide permanent bonding with inorganic materials under hot and humid conditions. It can increase the flexibility of resin materials, improve the wetting and penetration of resin into base-free substrates, and improve the dispersion and anti-settlement properties of inorganic materials in resin.
LA A2015	Water-based	It can greatly improve the bonding force between organic resin and substrate, and is suitable for inert metals such as stainless steel, aluminum, and galvanized sheets, as well as glass fiber, PET film materials, etc. Has high reactivity and excellent water solubility. It can improve the bonding force between normal temperature self-drying paint and the substrate, and the effect is better under the temperature drying process.
LA A3015	Water-based	It is used to enhance the adhesion of coatings on metal substrates and electrophoretic coatings. It can also enhance the adhesion between coatings and recoat adhesion. It needs to be used in a baking environment above 80°C.
J&Y 3134	Water-based、Oily	It can significantly improve the adhesion with inorganic materials (such as glass, metal) and can provide permanent bonding with inorganic materials under hot and humid conditions. It has excellent dispersion and wettability and can be miscible with alcoholic solvents in any proportion.

Fluorosilane

Trademark	CAS	Chemical Name	Content(GC)%
LA FS-1113	85857-16-5	Tridecafluorooctyltrimethoxysilane	≥97
LA FS-1313	83048-65-1	Heptadecafluorodecyltrimethoxysilane	≥97
LA FS-1419	51851-37-7	Tridecafluorooctyltriethoxysilane	≥97
LA FS-1619	101947-16-4	Heptadecafluorodecyltriethoxysilane	≥97

Silica Sol

Can be used in ceramic coatings, metal surface treatment, inorganic coatings and other industries

Trademark	Particle Size(nm)	Solid Content(%)	PH
J&Y 1430	10	30	9-7
J&Y 1440	14	40	9-7
J&Y C10045	100	45	9-9
J&Y C1030	10	30	10-1
J&Y C1230	12	30	3-8
J&Y C1430	10	30	10-1
J&Y C2040	20	40	9-9
J&Y C5050	42	50	9-9
J&Y D1020	10	20	3-2
J&Y D1030/1	10	30	3-5
J&Y D1030	10	30	9-6
J&Y D8040	86	40	10-0
J&Y E10843	108	43	10-0
J&Y F2530	25	30	3-8
J&Y F4030	40	30	3-8

Paint grade barite powder

It is a white powdery solid. It is usually used as an extender pigment in the coating industry, such as topcoat, primer, powder coating, high-solid coating, ink, latex paint and various industrial paints. It can also be used as a functional filler in plastics, Ceramics, friction materials and rubber products industries.

Trademark	Proportion(g/cm²)	Barium Sulfate	Granularity D97	Medium Particle SizeD50	White Degree	Oil absorption	PH	Moisture(Wt./%)
LA-ZB-200	≥4.35	≥97.5	84.97	17.25	≥94	7-11	6-9	0.1%MAX
LA-ZB-325	≥4.35	≥97.5	33.23	13.735	≥94	7-11	6-9	0.1%MAX
LA-ZB-500	≥4.35	≥97.5	23.85	8.004	≥94	7-11	6-9	0.1%MAX
LA-ZB-625	≥4.35	≥97.5	17.44	6.09	≥94	7-11	6-9	0.1%MAX
LA-ZB-800	≥4.35	≥97.5	15.31	5.65	≥94	7-11	6-9	0.1%MAX
LA-ZB-1000	≥4.35	≥97.5	14.16	4.11	≥94	7-11	6-9	0.1%MAX
LA-ZB-1250	≥4.35	≥97.5	13.44	3.93	≥94	7-11	6-9	0.1%MAX
LA-ZB-1500	≥4.35	≥97.5	11.49	3.4	≥94	7-12	6-9	0.1%MAX
LA-ZB-2000	≥4.35	≥97.5	8.1	2.6	≥94	7-12	6-9	0.1%MAX

Precipitated barium sulfate

It has the characteristics of high whiteness, low hardness, good weather resistance, low oil absorption, good dispersion and few impurities. It is widely used in various coatings, plastics, pigments, inks, papermaking, cosmetics, batteries and other industries.

Trademark	D50(μm)	Dispersion(μm)	Oil absorption (g/100g)	White Degree(%)	Parameter
LA FB300	0.5	10	15	98	99
LA FB600	0.7	10	13	98	99
LA FB900	1	10	11	98	99

Modified ultrafine precipitated barium sulfate

It is modified with silicon and aluminum, has good affinity, can improve the thermal conductivity of the product and reduce the expansion rate. It is widely used in various PCB inks, automotive paints, pigment pastes, industrial coatings, architectural coatings, engineering plastics, etc.

Trademark	Average Particle Size(μm)	Dispersion(μm)	Oil absorption (g/100g)	White Degree(%)	Modifier(%)	PH
FC200	0.2	10	16	98	2	8-9
FC300	0.3	10	18	98	3	8-9
FC500	0.5	10	19	98	3.5	8-9

Nanoprecipitated barium sulfate

It's particle size is less than 100nm, it has very high transparency, and the coating has better interlayer adhesion and film hardness. It can be widely used in various automotive coatings, ink pastes, industrial coatings, architectural coatings, wood paints, engineering plastics, etc.

Trademark	Average Particle Size(μm)	Dispersion(μm)	Oil absorption (g/100g)	White Degree(%)	Modifier(%)	PH	105℃ volatile matter
FN100	0.1	16	20	98	99	8	0.6
FN60	0.06	22	22	98	99	8	0.6
FN30	0.03	30	25	98	99	9	0.8

Polyamide Wax

Trademark	Type	Advantages
LA XW HST	Hydrogenated castor oil modified	Used in solvent-based coatings, inks, and adhesive systems to provide thixotropy, anti-sag properties, and anti-settling properties.
LA XW 80	Special modified polyamide wax powder	It has a wide activation temperature range and is easy to disperse and activate. Applied to solvent-based/solvent-free high solid content systems.
LA XW 90	Special modified polyamide wax powder	It is used in various solvent-based and high-solid systems, and is especially suitable for heavy-duty anti-corrosion systems such as epoxy and chlorinated rubber coatings to improve the thixotropic performance of the product and prevent sagging.
LA XW 46C	Acrylic-vinyl acetate emulsion	It is a special synthesis used in water-based coating systems and aluminum powder orientation.
LA XW 13	Water-based polyamide wax	It is a thixotropic paste made by pre-dispersion, expansion and activation. Enhancing aluminum powder orientation in water-based metallic paints.

Trademark	Type	Advantages
LA XW 17	Water-based polyamide wax	It needs to be pre-dispersed, expanded and activated. It has good solvent resistance and helps the orientation of silver powder.
LA XW 38	Water-based polyamide wax	It needs to be pre-dispersed, expanded and activated. It has good dispersibility and can be used in both water-soluble and emulsion systems to help orient silver powder.
LA XW 39	Water-based polyamide wax	It needs to be pre-dispersed, expanded and activated to prevent sagging and settling, and help orient aluminum powder and metallic pigments.
LA XW 39E	Water-based polyamide wax	It needs to be pre-dispersed, expanded and activated to prevent sagging and settling, and help orient aluminum powder and metallic pigments.

Light curing monomer

Single official

Product Name	Chemical Name	CAS#	Molecular Weight	Physical and chemical properties		Polymerization Inhibitor (ppm)	Refractive Index	Surface Tension (Dyes/cm,20℃)	Glass Transition Temperature (Tg, ℃)	Application features
				Acid value (mgKOH/g)	Viscosity (cps@25℃)					
IBOA	Isobornyl Acrylate	5888-33-5	208	≤0.5	5-15	≤200	1.474	31.7	88	Good adhesion, good toughness, excellent wear resistance, good heat resistance and water resistance
PHEA	2-Phenoxy Ethyl Acrylate	48145-04-6	192	≤0.5	5-15	200-600	1.515	38.4	5	Good dilution, high reactivity and low viscosity, suitable for UV screen printing ink
THFA	Tetrahydrofurfuryl acrylate	2399-48-6	154	≤0.5	4-6	≤600	1.455	34.9	-28	Good weather resistance and chemical resistance, excellent adhesion to PC
CTFA	Cyclic Trimethylolpro-pane Formal Acrylate	66492-51-1	200	≤0.5	12-18	100-300	1.462	35.5	10	Low odor, good chemical resistance, fast curing speed, high hardness and good wear resistance
DCPEA	Dicyclopentenyloxyethyl Acrylate	65983-31-5	248	≤1	15-25	700-900	1.499	36	12	Good flexibility and good adhesion
DCPA	Dicyclopentadienyl Acrylate	33791-58-1	204	≤1	8-18	≤1000	1.505	——	60	High Tg and good adhesion
ACMO	4-Acryloylmorpholine	1175-32-4	141.17	≤3	8-12	——	1.508	44.6	145	Good dilution, good heat resistance, good adhesion, good toughness

Light curing monomer

Double official

Product Name	Chemical Name	CAS#	Molecular Weight	Physical and chemical properties		Physical and chemical properties				Application features
				Acid value (mgKOH/g)	Viscosity (cps@25℃)	Polymerization Inhibitor (ppm)	Refractive Index	Surface Tension (Dyes/cm,20℃)	Glass Transition Temperature (Tg, ℃)	
HDDA	1,6-Heanediol Diacrylate	13048-33-4	226	≤0.5	6-12	≤300	1.455	35.9	43	Good dilution power, good weather resistance, good adhesion to plastics
DPGDA	Dipropylene Glycol Diacrylate	57472-68-1	242	≤0.5	6-12	≤300	1.449	33.5	102	Good dilution power, fast curing speed, low volatility and low viscosity
TPGDA	Tripropylene Glycol Diacrylate	42978-66-5	300	≤0.5	10-15	≤300	1.449	33.3	62	Good flexibility, low volatility and low viscosity
NPG(PO)2DA	Propoxylated Neopentyl Glycol Diacrylate	84170-74-1	328	≤0.5	10-15	≤300	1.447	30.6	32	Improved adhesion, low surface tension, low curing shrinkage, improved flexibility

Three officials and above

Product Name	Chemical Name	CAS#	Molecular Weight	Physical and chemical properties		Physical and chemical properties				Application features
				Acid value (mgKOH/g)	Viscosity (cps@25℃)	Polymerization Inhibitor (ppm)	Refractive Index	Surface Tension (Dyes/cm,20℃)	Glass Transition Temperature (Tg, ℃)	
GPTA	Propoxylated Glyceryl Triacrylate	52408-84-1	428	≤1.0	70-100	≤400	1.461	36.1	18	Good hardness and fast curing. Low skin irritation and pigment wetting and dispersing properties
TMPTA	Trimethylolpropane Triacrylate	15625-89-5	296	≤0.5	80-100	≤300	1.473	36.6	62	High gloss and hardness, good wear resistance, high reactivity and high cross-linking density
TMP(EO)3TA	Ethoxylated Trimethylol-propane Triacrylate	28961-43-5	428	≤0.5	40-80	≤300	1.469	38.1	40	Good hardness, more flexible than EM231, and low skin irritation
PETA	Pentaerythritol Triacrylate	3524-68-3	298	≤2	600-900	——	1.484	38	103	Good hardness, fast curing, high cross-linking density, and good solvent resistance
DPHA	Dipentaerythritol Hexaacrylate	29570-58-9	525	≤1	3000-7000	≤500	1.487	36	12	High reactivity, excellent wear resistance, good chemical resistance and water resistance, and high cross-linking density

Photoinitiator

Free radical type Ⅰ

Product Type	CAS NO.	Appearance	Maximum absorption wavelength	Application
Pi-22	/	Light yellow to yellow liquid	273nm,370nm	Light curing light color coatings and inks, deep curing, UV-LDE curing
Pi-23	/	Light yellow to yellow liquid	273nm,370nm	Light curing light color coatings and inks, deep curing, UV-LDE curing
Pi-24	/	Light yellow to yellow liquid	273nm,370nm	Light curing light color coatings and inks, deep curing, UV-LDE curing
Pi-25	/	Light yellow to yellow liquid	244nm,278nm, 322nm,370nm	Light-curing light-colored coatings and inks take into account surface and deep curing. It can be used for UV-LDE curing with Pi22~24.
LA-1173	7473-98-5	Colorless to light yellow transparent liquid	244nm,278nm,322nm	Used in photocuring systems with unsaturated polyester and multifunctional monomers, and compounded with other photoinitiators. It is recommended to add 1-4%
LA-184	947-19-3	White powder or crystal	Soluble in water	Light-curing ink (offset/flexo/silk screen/gravure) coating, gloss oil, varnish

Photoinitiator

Free radical type Ⅰ

Product Type	CAS NO.	Appearance	Maximum absorption wavelength	Application
LA-TPO	75980-60-8	Light yellow crystal or powder	273nm,370nm	Light-curing light-color coatings and inks, deep curing, UV-LED curing
LA-379	119344-86-4	Light yellow crystal or powder	233nm,320nm	Use alone or mixed with 184 ， used for light-curing coatings and inks
LA-BDK	24650-42-8	white crystal or powder	250nm,340nm	Light-curing coatings and inks, recommended proportion 2-5%
LA-2959	106797-53-9	white solid	274nm	Water-based UV coatings and inks
LA-MBF	15206-55-0	Light yellow transparent liquid	255nm,340nm	Water-based UV coatings and inks

Free radical type Ⅱ

Product Type	CAS NO.	Appearance	Maximum absorption wavelength	Application
LA-ITX	5495-84-1	Light Yellow Crystal	258nm.382nm	Light-curing light-color coatings and inks,UV-LED curing
LA-DETX	82799-44-8	Yellow Powder	257nm,382nm	Light-curing light-color coatings and inks,UV-LED curing
LA-BP	119-61-9	White Flaky Solid	250nm,340nm	Light-curing light-color coatings and inks
LA-BMS	83846-85-9	White Flake Crystal	245nm,315nm	High-efficiency light-curing coatings and inks
LA-EAB	90-93-7	Light Yellow Powder	248nm,374nm	High-efficiency light-curing coatings and inks
LA-MBP	134-84-9	White Powder Crystal	257nm,337nm	Light-curing light-color coatings and inks
LA-PBZ	2128-93-0	Off-White To Light Yellow Solid	289nm,350nm	Light-curing light-color coatings and inks

Epoxy Emulsion

Product Type	Type	Solid Content (%)	Epoxy equivalent	Viscosity mPa.s (cps/25℃)
LA ER 665	Epoxy emulsion	54.0-58.0	450-550	1000-5000
LA ER 673	Type IV epoxy emulsion	51.0-55.0	720-900	1000-5000
LA ER 663	Type 1 epoxy resin	51.0-55.0	450-550	800-3000
LA ER 612	Self-emulsifying epoxy emulsion	73.0-77.0	450-550	3000-8000
LA C611	Epoxy emulsion	50.0-55.0	450-550	300-1000
LA ER 22	Water-based epoxy emulsion	51.0-55.0	920-1080	200-2000
LA ER 23	Water-based epoxy emulsion	52.0-56.0	900-1100	300-4500

Application	Characteristic
Industrial anti-corrosion, construction machinery, rail transit, power equipment	Small particle size, high solid content, good curing agent compatibility, and excellent drying and anti-corrosion properties
Construction machinery	It is a water-based product of Type 4 epoxy, requiring less curing agent, good water resistance, and good polishability. The salt spray performance is good on sandblasted steel plates.
Construction machinery	Has higher cost performance; Better drying and anti-corrosion properties
Industrial anti-corrosion, construction machinery, rail transit	Self-emulsifying; low odor, can be used in water-based coatings; has good water resistance and salt spray resistance
Industrial anti-corrosion, epoxy zinc-rich primer	Small particle size, high mechanical stability, fast drying speed, good adhesion, excellent water resistance and salt spray resistance
General industry, construction machinery, rail transit	Epoxy zinc rich primer
General industry, construction machinery, rail transit	Epoxy zinc rich primer

Modified Epoxy Emulsion

Product Type	Type	Solid Content (%)	pH	Viscosity mPa.s (cps/25℃)
LA ER 037	Epoxy Acrylic Emulsion	43.0-47.0	7.0-9.0	500-4000
LA ER 038	Cationic emulsion of modified epoxy resin	38.0-42.0	5.0-7.0	300-3000

Application	Characteristic
Hardware baking paint, vehicle primer, vehicle mid-coat, etc.	High flash point, environmentally friendly and safe; can be mixed with water in any proportion
Wood sealer, paper varnish, anti-rust repair paint,etc.	Requires less film-forming additives and low VOC emissions; excellent water resistance and good salt spray resistance

Hydroxypropyl Emulsion

Product Type	Type	Solid Content (%)	Hydroxyl value	Viscosity mPa.s (cps/25℃)
LA AR 7151	Hydroxypropyl Emulsion	23.0-27.0	1.2	<1000
LA AR 196	Hydroxypropyl Emulsion	44.0-48.0	2	500-4000
LA AR 194	Hydroxypropyl Emulsion	43.0-47.0	3.9	1000-5000

Application	Characteristic
Silver paint, copper doors, hardware, bicycle parts	Fast surface drying, high hardness, good aluminum powder orientation, and excellent chemical resistance
Furniture and woodware, engineering machinery, rail transit	Low hydroxyl product, less isocyanate addition, high cost performance
Engineering machinery, 3C plastic	Good fullness, high hardness, high gloss, few pinholes in thick coating

Curing Agent

Product Type	Type	Solid Content (%)	Viscosity mPa.s (cps/25℃)	Amine value (mg KOH/g)	Active hydrogen equivalent	Application features
LA EC 724	Water-based epoxy curing agent	78-82	10000-30000		140	Excellent salt spray resistance; good paint film flexibility; long potlife
LA EC 704	Water-based epoxy curing agent	78-82	11000-30000	220±10	115	Fast reaction speed, excellent drying performance; good water resistance and salt spray resistance
LA EC 756	Water-based epoxy curing agent	43-47	50-3000		345(supply)	Fast drying; good adhesion; fast hardness growth; excellent salt spray resistance; improved formula stability;

Product Type	Type	Solid Content (%)	Viscosity mPa.s (cps/25℃)	NCO Content %	HDI Monomer content%	Application features
LA ER 69	Aliphatic isocyanate curing agent (HDI)	100	4500-7500	15.7-16.7	<0.2	Excellent chemical resistance, good hand dispersion, fast hardness establishment, high gloss and low haze
LA ER 79	Aliphatic isocyanate curing agent (HDI)	100	2000-4000	20.5-21.5	<0.2	Excellent chemical resistance, good hand dispersion, fast hardness establishment, high gloss and low haze

Xylene resin product description

Product Type	Color Number	Oxygen content	Viscosity	Non-volatile matter content (cps,25℃)	Acid value	Appearance	Application scope
LA KS-69	≤6	9-13	110-150	≥95	≤0.3	Light yellow liquid	Unsaturated resin, insulating paint, paint plasticization

Phenolic epoxy resin product description

Product Type	Epoxy equivalent (g/eq)	Softening Point (℃)/ Dissolution Concentration GH/25℃	Gardner	Characteristic	Appearance	Application scope
LA FQ 749	170-190	H-K	≤3	Standard phenol,Phenolic type	Colorless to light yellow transparent semi-solid, no visible impurities allowed	Heat-resistant adhesives, composites, high-temperature coatings, electronic laminates, civil engineering and epoxy vinyl inks.

Etherified phenolic resin product description

Product Type	Type	Appearance	Viscosity (cps/25℃)	Solid Content(%)	Solubility	Application Area
LA KD-611	Etherified phenolic resin	Yellow or brown-red transparent liquid	1500-1800	76-85	1:3Toluene clear	As a high-temperature curing agent for epoxy resin, it has good compatibility with epoxy resin. After mixing, it needs to be baked at high temperature. The resulting paint film has good insulation, corrosion resistance and high temperature resistance. Used in enameled wire, metal coatings, anti-corrosion coatings and other special coatings.
LA KD-612	Etherified phenolic resin	Yellow or brown-red transparent liquid	300-800	55-65	1:4Toluene clear	
LA KD-616	Etherified phenolic resin	Yellow transparent liquid	300-400	58-65	1:4Toluene clear	
LA KD-617	Etherified phenolic resin	Brown-red transparent liquid	200-300	65-70	1:4Toluene clear	

Epoxy Curing Agent Product Description

Product Type	Color (Ghanaian Law)	Solid content (%)	Viscosity (cps/25℃)	Active hydrogen equivalent	25/5℃ Surface dry(hour)	Product Description	Application scope
LA C4652	16	Solvent-free	28000	130	5/15-5	Low temperature curing, good substrate surface tolerance, excellent anti-corrosion protection	Marine, industrial and transportation coatings and adhesives, construction adhesives
LA 2343	11	Solvent-free	1080	133	2/7-5	Fast curing, excellent film appearance, solvent-free	Marine, industrial and transportation coatings and adhesives, solvent-free floor primers, construction adhesives
LA 85	16	Solvent-free	30000	198	3/15	Highly cost-effective product that can replace conventional polyamide products	Marine, industrial and transportation coatings and adhesives, construction adhesives
LA C26	15	75	12000	151	2/6-5	Fast curing, high viscosity	Marine, industrial and vehicle coatings

Water and oil universal curing agent

Product Type	Type	Solid content (%)	Viscosity mPa.s(cps/25℃)	Amine value (mg KOH/g)	Application	Characteristic
DMP-30	2,4,6-tris(dimethylaminomethyl)phenol	>99	120-260	600-635	It can be used as an epoxy resin curing agent at room temperature, and can also be used as an accelerator for curing agents such as amines, polycarboxylic acids and acid anhydrides. It can be used in coatings, castables, anti-corrosion, floor paints, concrete and adhesives, etc. Catalyst for trimerization of polyisocyanates.	Low color, low viscosity, low dosage, used as epoxy accelerator

Unblocked acid catalyst

Product Type	Acid Type	Solvent	Active content (%)	Acid value	Minimum curing temperature	Characteristics and applications
LA SC 3051	DNNSA	Ethylene glycol monobutyl ether	50	60-64	125°C	Good water resistance and corrosion resistance, suitable for high temperature baking; suitable for general industrial coatings, coil printing iron coatings
LA SC 3076	DNNSA	Isopropyl alcohol	70	130-140	Room Temperature	Good solubility and weather resistance; suitable for general industrial coatings, coil printing iron coatings, paper inks, and automotive surface coatings

Blocked acid catalyst

Product Type	Acid Type	Solvent	Active content (%)	Acid value	Minimum curing temperature	Characteristics and applications
LA SC 3557	DNNSA	Ethylene glycol monobutyl ether	25	7-8	150°C	Good solubility, excellent color stability, heat and humidity resistance, and detergent resistance. It is suitable for high-temperature baking amino cross-linking systems, such as coil printing iron coatings, electrophoretic paints, and automotive topcoats.
LA SC 3323	DNNSA	Xylene	30	N/A	150°C	Low conductivity, good solubility in aromatic and aliphatic solvents, small interaction between pigments, suitable for electrostatic spraying and high-temperature baking: suitable for Xitong industrial coatings, coil printing iron coatings, and automotive topcoats.
LA SC 3419	DNNSA	Xylene	25	N/A	150°C	Water-resistant, detergent-resistant, salt spray-resistant, small interaction between pigments, suitable for electrostatic spraying and high-temperature baking; suitable for general industrial coatings, coil printing iron coatings, and automotive topcoats.
LA SC 3528	DNNSA	Isopropyl alcohol	25	6-7	120°C	It is a general-purpose catalyst with good solubility and excellent color stability; it is suitable for coil printing iron coatings, general industrial coatings, automotive topcoats, and paper inks.
LA SC 3525	DNNSA	Isopropyl alcohol	25	6-7	120°C	It is a general-purpose catalyst with good solubility and excellent color stability; it is suitable for coil printing iron coatings, general industrial coatings, automotive topcoats, and paper inks.
LA SC 3107	p-TSA	Isopropyl alcohol	25	8-9	90°C	It is a general-purpose catalyst with low curing temperature and good catalytic effect. It is suitable for general industrial coatings, coil printing iron coatings, and paper inks.
LA SC 3045	p-TSA	Isopropyl alcohol	25	6-7	80°C	It is a general-purpose catalyst, colorless and transparent, with low curing temperature, fast catalytic speed and good effect. It is suitable for general industrial coatings, coil printing iron coatings, and paper inks.

Some models and applications of hollow glass beads

Trademark	True Density (g/cm³)	Bulk Density (g/cm³)	Compressive Strength Mpa/Psi	D50(μm)	D90(μm)	Application
LA HL15	0.13-0.17	0.08-0.09	4/500	80	120	Substitute wood, solid buoyancy materials, emulsion explosives, automobile repair putty, paint
LA HL20	0.18-0.22	0.10-0.12	4/500	65	110	Substitute wood, solid buoyancy materials, emulsion explosives, automobile repair putty, paint
LA HL38	0.36-0.40	0.19-0.22	38/5500	40	65	Coatings, SMC/BMC, primers, solid buoyancy materials
LA HL40	0.38-0.42	0.19-0.23	28/4000	40	70	Oilfield cementing slurry, low density drilling fluid, thermal insulation coating
LA HL60S	0.58-0.63	0.30-0.34	124/18000	35	55	Oilfield cementing slurry, modified plastics
LA HS20	0.18-0.22	0.10-0.12	7/1000	60	90	Substitute wood, solid buoyancy materials, emulsion explosives, automobile repair putty, paint
LA HS38	0.36-0.40	0.19-0.22	38/5500	30	50	Composite circuit board, SMC, adhesive
LA HS65	0.63-0.67	0.30-0.33	207/30000	13	20	5G related plastics, engineering plastics
LA HS70	0.75-0.80	0.33-0.35	207/30000	10	15	5G related plastics, engineering plastics
LA HM10	1.40-1.60	0.45-0.50	193/28000	5	10	Adhesives, modified plastics, coatings, composite materials
LA HM15	1.20-1.30	0.40-0.45	124/18000	7	15	Adhesives, modified plastics, coatings, composite materials
LA HM20	1.05-1.15	0.39-0.44	124/18000	9	20	Adhesives, modified plastics, coatings, composite materials

Some models and applications of solid glass beads

Trademark	True Density (g/cm³)	D50(μm)	D90(μm)	Application
LA MC10	2.60±0.10	6	10	Inks, coatings, engineering plastics
LA MC15	2.60±0.10	9	15	Coatings, engineering plastics
LA MC20	2.60±0.10	12	20	Coatings, engineering plastics
LA MC30	2.60±0.10	17	30	Coatings, engineering plastics

Some product models of matting powder

Trademark	SiO2 content (dry basis)%	Porosity (ml/g)	Average particle size D50(μm)	Oil absorption value (g/100g)	Loss on drying (2h at 105℃)%	Weight loss on burning (2h at 1000℃)%	PH	Surface treatment
LA XG721	≥99	1.8~2.0	4.5	260~320	≤5	≤5	5~7	special handling
LA XG721M	≥99	1.8~2.0	4.5	260~320	≤5	≤15	5~7	organic
LA XG731	≥99	1.8~2.0	4.6	260~320	≤5	≤5	5~7	special handling
LA XG731M	≥99	1.8~2.0	4.6	260~320	≤5	≤15	5~7	organic
LA XG741	≥99	1.8~2.0	5.5	260~320	≤5	≤5	5~7	special handling
LA XG741M	≥99	1.8~2.0	5.5	260~320	≤5	≤15	5~7	organic
LA XG761	≥99	1.8~2.0	6.3	260~320	≤5	≤5	5~7	special handling
LA XG761M	≥99	1.8~2.0	6.3	260~320	≤5	≤15	5~7	organic
LA XG771	≥99	1.8~2.0	8	260~320	≤5	≤5	5~7	special handling
LA XG771M	≥99	1.8~2.0	8	260~320	≤5	≤15	5~7	organic
LA XG971	≥99	1.8~2.0	5.5-6.0	170~210	≤7	≤7	5~7	special handling
LA XG981	≥99	1.2~1.4	7.4-8.0	170~210	≤7	≤7	5~7	special handling
LA XG1011	≥99	1.6~1.8	5.6-6.0	260~320	≤5	≤5	5~7	special handling
LA XG1066	≥99	1.6~1.8	6.3-7.0	260~320	≤5	≤5	5~7	special handling
LA XG1066M	≥99	1.6~1.8	6.3-7.0	260~320	≤5	≤15	5~7	organic

Kastar's cooperative enterprise

Silane coupling agent, coating additive, water-based silicone resin

Borchers® additive for Milliken coatings auxiliary

UV high transparency color paste, solvent based resin free color paste, special silane

Thiol olefin system

Fungicides, surfactants, pigments

Various paint additives

Talc powder & diatomaceous earth & kaolin

Fillers such as siliceous silica powder

Bismuth oxide

Kastar Vision and Mission

Company vision

We are the pioneer and successful partner of world-leading specialty chemicals brands in the global market.

Company mission

We focus on industry overall solutions and provide optimization along with the most professional and efficient service.

Kastar Sales Strategy

Focus on authorized distribution

Customer - centric supply chain management

Formula as the center, supporting sales

Business internationalization layout

Our industry

Paints & inks

Defoaming agent, UV monomer、leveling agent, wetting agent, anti-flash rust agent, color paste, pigments and fillers, special resin, curing agent, silane, etc.

Adhesive sealant

Provide silane, fillers, and additives for photovoltaic EVA/POE film, silicone, epoxy, and polyurethane systems.

Surface treatment

Solutions: glass fiber treatment, titanium dioxidetreatment, glass fiber cloth treatment, filler treatment ,metal surface treatment, except from that, Kastar also can provide product such as ,silane and various addi-tives.

Chemical Fibre

Provide chemical fiber oil agent for treatment for nylon, non-woven fabric and other industries.

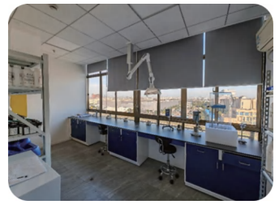
Kastar Laboratory

Application laboratory

Integrated laboratory

Adhesion laboratory

Assay laboratory



Fluid laboratory

Examination room