天科新材
TIANKE POLYMERS

UV

TIANKE POLYMERS
INNOVATION SOLUTIONS

广东天科新材料有限公司
Guangdong Tianke Novel Materials Co., Ltd.

ABOUT TIANKE

Guangdong Tianke Novel Materials CO., Ltd. is a technology-oriented producer of UV curable oligomers and monomers. What' s more, we specialize in providing tailored solutions for the UV curable industry. Our commitment to quality, efficiency, innovation, responsibility, and customer satisfaction drives our success, ensuring that we deliver the highest standard of products, services and solutions to meet our clients' diverse needs.




Tianke' s Workshop

- 35,000 sq.m. plant with 100 workers
- Over 30 reactors, with 3~69tonnes each
- 3000tonnes/month production capacity
- Efficient and meticulous organized warehouse

Tianke' s R&D of Synthesis

Tianke' s R&D of synthesis is a powerhouse of innovation, combining expertise and creativity. Our dedicated R&D team explores cutting-edge techniques, continually refining UV curable materials.

Tianke' s R&D of Applications

From coatings to inks, adhesives, and more, Tianke' s R&D team continuously push boundaries, delivering exceptional UV curable applications that redefine performance and possibilities.

A trusted partner in the industry

As a trusted partner in the polymer industry, we are confident that we can provide you with the UV curable chemicals that you need to achieve your business goals. Contact us today to learn more about how we can help you solve your problems with our UV materials.

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TIANKE POLYMERS
INNOVATION SOLUTIONS

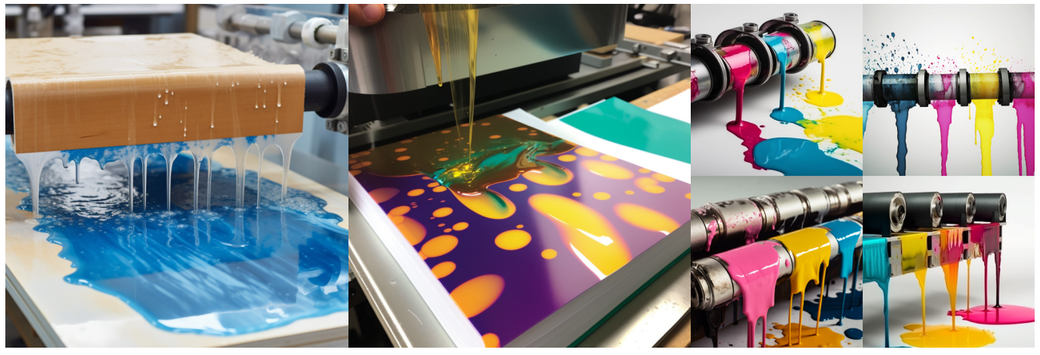
APPLICATION - UV INKS

OPV

T-113	Amine synergist to improve curing rate
TK2202A | TK2202B | TK2203	Standard epoxy acrylate
TK2208	Epoxidized soybean oil, good pigment wetting
TK3208	Polyester Acrylate with low shrinkage and lower the cost
TK7601	High hardness and low viscosity
TK6101 | TK6301 | TK6303	Full Acrylate, good adhesion
TK5201	Excellent flexibility, low shrinkage

For BOPP | PET, and other plastic films

TK3405	Low viscosity, good adhesion to BOPP
TK4301 | TK4301B	Good adhesion and chemical resistance
TK6306 | TK6307	Full Acrylate, good adhesive
TK4601 | TK4608 | TK4609	High curing rate, high abrasion resistance and high hardness
TK7601	High hardness and low viscosity
TK4308A | TK4308C	Excellent matte effect, low viscosity



UV Wrinkled Inks

TK4201	Fine-detailed wrinkled
TK4202	Fast cure response, good wrinkle effect
TK4207	Good flexibility

UV Flexo Inks

TK3403	Fast cure response, low viscosity
TK3404	Good pigment wetting, good flexibility

UV Offset Inks

TK3310 | TK3401	Good pigment wetting, good water-ink balance and good adhesion
TK3402	Excellent overall performance
TK3407	Good water-ink balance, excellent adhesion to difficult-to-adhere plastic substrates
TK2204	Fast curing rate, good pigment wettability
T-115	Excellent curing speed, good adhesion to plastic

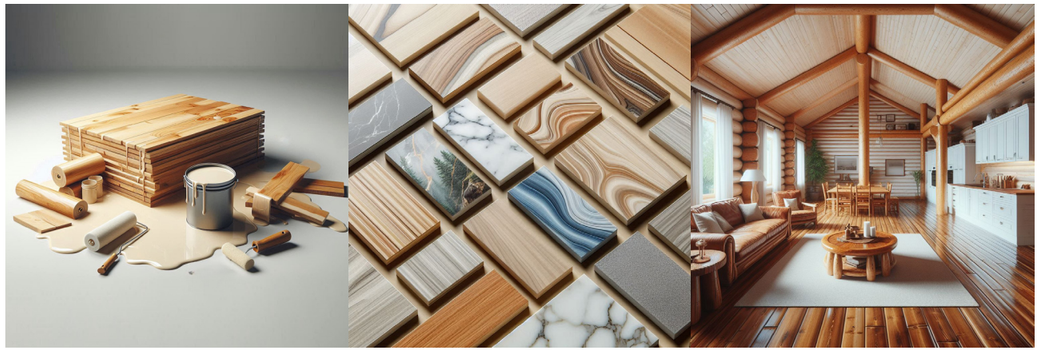
APPLICATION - UV COATING FOR WOOD

Putty | Primer Coat

TK2202A | TK2202B | TK2203	Standard Epoxy Acrylate
TK2210 | TK2211	Fast curing rate, high cost performance
TK3208	Low cost polyester acrylate, low shrinkage
TK4221	Excellent adhesion for melamine substrate
TK3209	For general kind of solid wood, excellent adhesion
TK3204 | TK5202	Good flexibility, good adhesion
T-201	Adhesion promoter

Top Coat

TK2202A | TK2202B | TK2203	Standard Epoxy Acrylate
TK4308A | TK4308C	Good self-matt performance
TK3301 | TK3302 | TK3303	Good yellowing resistance, low viscosity
TK4601 | TK5601	Fast curing, high hardness
TK7601	High hardness, low viscosity



APPLICATION - UV COATING FOR PVC

**PVC Flooring
Edge Banding
PVC Ceiling
PVC Coiling**

TK2218 | TK5208 | TK4208 | TK4215	General Body Resin
T-201	Adhesion Promoter
TK4308A | TK4308C	Self Matte Resin
TK5208 | TK4208 | TK4215 | TK4216 | TK5204	Easy-to-matt Resin
TK4217 | TK4303 | TK5205	High Thimble Resistance
TK4902 | TK4604	High Staining Resistance
TK4606 | TK4219	High Iodine Tincture Resistance
TK4229 | TK5209	To Improve Flexibility
TK4218 | TK5206 | TK3210	Good Adhesion to Hard PVC
TK4605 | TK4601 | TK4903 | TK4901 | TK5603 | TK7601	Fast Cure, High Hardness

APPLICATION - UV NAIL POLISH

Primer Layer

TK6305	Excellent adhesion, good flexibility
TK4240	Good adhesion, good flexibility

Color Layer

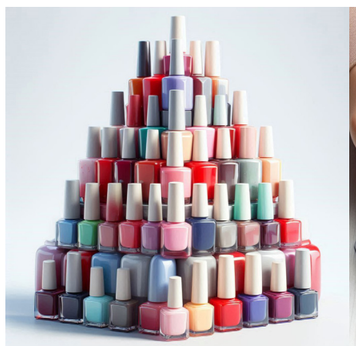
TK4241	Good flexibility, good yellow resisitance, good pigment wetting
TK4242	Fast curing speed, good flexibility, good yellowing resistance
TK5201 | TK5301	Good pigment wetting, good flexibility
TK2240	Good flexibility, fast curing speed, excellent resistance to yellowing
T-115	Excellent curing speed, good adhesion

Top Layer

TK4350	Excellent yellowing resistance after curing, good compatibility with thiols
TK4351	Good toughness, excellent yellowing resistance after curing, good stability

Extension Glue

TK4243	Good toughness, low heat release, good glossiness, good solvent resistance
TK4203	Low odor, good flexibility, low heat release
TK4204	Excellent yellowing resistance, good flexibility



APPLICATION - UV COATING FOR VACUUM METALIZING

Primer Coat

TK5301 | TK5302	Good plating performance, high fullness
TK4204 | TK4213B | TK4210	Good plating performance, excellent overall performance
TK4203 | TK4212	Good resistance to boiling water, good leveling
TK3413	Good wetting and leveling, good fullness
TK2203 | TK2216	Good plating performance, high cost performance
TK2215	Excellent leveling and wetting, good plating performance

Top Coat

TK7301	Good adhesion, good chemical resistance
TK4601 | TK5602	Improve hardness and abrasion resistance
T-301	Improve adhesion to metal layer

APPLICATION - WATERBASED UV WOOD COATINGS

Roller Coating

WB231	3F, excellent adhesion to different substrates
WB341	3F, good toughness
WB342	3F, good toughness, good fullness
WB381	6F, high hardness, high gloss

High Gloss Coating

WB262	6F, excellent anti-yellow performance, high hardness
WB264	6F, excellent fullness, good adhesion

Matte Coating

WB242	4F, good combination property
WB243	4F, easy to matt and high wear resistance

Epoxy Acrylate

Product No.	Chemical Name	Functionality	Features & Uses		Color (Gardner)	Refractive Index (25°C)	Viscosity (CPS at 25°C)	Acid Value (mg KOH/g)	Pencil Hardness	Reactivity	Flexibility	Chemical Resistance	Adhesion
TK2201	Pure Epoxy Acrylate	2	• 100% Bisphenol A Epoxy Acrylate		⩽ 1	1.554	65,000-85,000 @40°C	⩽ 2.0	H	+++++	++	++	++
TK2202A	Epoxy Acrylate blend in TPGDA 20%	2	• Universal epoxy resin		⩽ 3	1.534	25,000-35,000	⩽ 2.0	2H	++++	++	++	++
TK2202B	Epoxy Acrylate blend in TPGDA 25%	2	• Universal epoxy resin		⩽ 3	1.528	10,000-30,000	⩽ 2.0	2H	++++	++	++	++
TK2203	Epoxy Acrylate blend in TMPTA 20%	2	• Universal epoxy resin		⩽ 2	1.537	70,000-90,000	⩽ 1.5	3H	+++++	+	+++	++
TK2204	Modified Epoxy Acrylate	2	• Fast curing speed, good adhesion • Good pigment wetting • Suitable for offset printing inks, UV inks		⩽ 3	1.533	65,000-100,000	⩽ 2.5	2H	++++	+++	++	+++
TK2205	Modified Epoxy Acrylate	2	• Excellent flexibility • Good adhesion and low shrinkage • Suitable for Plastic/Metal coating/inks		transparent green	1.544	12,000-20,000	⩽ 3.0	B	++++	++++	+++	+++
TK2208	Epoxy Soybean Oil Acrylate	2	• Good pigment wetting • Good leveling		⩽ 13	1.478	20,000-35,000	⩽ 10.0	<6B	+	+++	+	+
TK2210	Modified Epoxy Acrylate	2	• High hardness and gloss • High cost performance		⩽ 3	1.475	35,000-50,000	⩽ 2.0	HB	++++	++	++	++
TK2211	Modified Epoxy Acrylate	2	• Low viscosity, fast curing rate • High cost performance		⩽ 3	1.506	7,000-9,000	⩽ 2.0	H	++++	++	++	++
TK2212	Modified Epoxy Acrylate	2	• Good comprehensive performance of flexibility • Good adhesion • Good yellowing resistance		⩽ 2	1.533	130,000-150,000	⩽ 2.0	HB	++++	++	++	++
TK2213	Modified Epoxy Acrylate	2	• Good yellowing resistance, good toughness • Suitable for UV ink and furniture coatings		⩽ 2	1.521	130,000-150,000	⩽ 2.0	H	++++	+++	+++	++
TK2214	Modified Epoxy Acrylate	2	• Excellent comprehensive performance		⩽ 2	1.521	60,000-80,000	⩽ 2.0	HB	++++	++	+++	++
TK2215	Modified Epoxy Acrylate	2	• High tensile strength • Good yellowing resistance • For vacuum metallizing, high-end OPV		⩽ 3	1.524	50,000-75,000 @40°C	⩽ 3.5	HB	++++	+++	+++	++
TK2216	Modified Epoxy Acrylate	2	• Good yellowing resistance • Good toughness • For UV ink, furniture coatings, white coatings		⩽ 2	1.514	70,000-90,000	⩽ 2.0	HB	++++	++	+++	++
TK2218	Modified Epoxy Acrylate	2	• Light color, high gloss • Fast curing speed • Good toughness • A good option for reducing cost of PVC varnish		⩽ 60 (APHA)	1.548	1,200-2,800 @60°C	⩽ 5.0	HB	++++	++	++	+++

Epoxy Acrylate

Product No.	Chemical Name	Functionality	Features & Uses		Color (Gardner)	Refractive Index (25℃)	Viscosity (CPS at 25℃)	Acid Value (mg KOH/g)	Pencil Hardness	Reactivity	Flexibility	Chemical Resistance	Adhesion
TK2219	Modified Epoxy Acrylate	2	• Good curing speed and gloss • Excellent flexibility and tensile strength • Suitable for wood and plastic coatings		⩽ 2	1.517	90,000-130,000	⩽ 2.0	B	++++	+++	++	++
TK2221	Modified Epoxy Acrylate	2	• Excellent leveling and pigment wetting • Good flexibility and low shrinkage • For wood and plastic coatings, offset inks		⩽ 3	1.523	110,000-170,000	⩽ 3.0	HB	++++	+++	++	++
TK2240	Modified Epoxy Acrylate	2	• Good flexibility, fast curing speed • Excellent resistance to yellowing • For Nail polish color layer		⩽ 1	1.535	75,000-100,00	⩽ 6	HB	++++	++++	++	++
TK2401	Phenolic Epoxy Acrylate (TMPTA)	4	• High temperature resistance • High hardness		⩽ 5	1.518	10,000-15,000	⩽ 2.5	2H	++++	++	+++	++
TK2402	High Acid Value Modified O-methyl Phenolic Epoxy Acrylate	4	• Alkali-soluble photosensitive resin • High temperature resistance and good adhesion • Suitable for PCB solder resist ink		⩽ 14	1.524	20,000-40,000	50-60	<6B	+++	+++	+++	++

Polyester Acrylate

Product No.	Chemical Name	Functionality	Features & Uses		Color (Gardner)	Refractive Index (25℃)	Viscosity (CPS at 25℃)	Acid Value (mg KOH/g)	Pencil Hardness	Reactivity	Flexibility	Chemical Resistance	Adhesion
TK3201	Polyester Acrylate	2	• Low viscosity • Can replace part of TPGDA		⩽ 3	1.476	30-60	⩽ 2.0	6B	+++	++	++	++
TK3202	Polyester Acrylate	2	• Low viscosity • Adhesion promoter, especially on melamine substrates		⩽ 3	1.524	2,500-4,500	⩽ 1.5	<6B	+	+++	++	++++
TK3203	Polyester Acrylate	2	• Low viscosity • Good flexibility		⩽ 5	1.518	1,500-2,500	⩽ 2.0	<6B	+++	+++	++	++++
TK3204	Polyester Acrylate	2	• Low viscosity • Good flexibility, good adhesion • Suitable for difficult-to-adhere substrates		⩽ 3	1.461	800-2,100	⩽ 3.0	B	+	+++++	++	+++++
TK3206	Polyester Acrylate	2	• Low viscosity • Fast curing speed • High gloss, and good adhesion		⩽ 2	1.470	500-4,000	⩽ 3.0	HB	++++	++	++	++
TK3208	Polyester Acrylate	2	• Good wetting and good flexibility • Ideal for wood putty/primer coatings and OPV		⩽ 2	1.529	25,000-40,000	⩽ 2.0	6B	++++	++	++	++
TK3208B	Polyester Acrylate	2	• Good wetting, good flexibility • Benzene free • Especially for wood primer coatings and OPV		⩽ 2	1.384	25,000-40,000	⩽ 5.0	<6B	++++	++	++	++
TK3209	Polyester Acrylate	2	• Excellent adhesion to solid wood substrates • Good flexibility • Suitable for wood primer coatings		⩽ 2	1.384	250-750	⩽ 5.0	<6B	++	+++	++	++++
TK3210	Polyester Acrylate	2	• Excellent adhesion to PVC substrates • Good flexibility • Suitable for PVC primer coatings		⩽ 3	1.489	500-1,500	⩽ 2.0	4H	++	+++	++	++++
TK3211	Polyester Acrylate	2	• Alkaline solubility, good adhesion to glass • Fast curing speed • Low odor, good flexibility • Suitable for the application of glasses		⩽ 50 (APHA)	1.498	200-500 @60°C	⩽ 80.00	<6B	++	+++	+++	++++
TK3301	Polyester Acrylate	3	• High hardness • Good yellowing resistance		⩽ 3	1.489	10,000-20,000	⩽ 2.0	4H	++++	+	+++	++
TK3302	Polyester Acrylate	3	• Low viscosity • Good yellowing resistance • Good anti-spray performance • For UV inks, PVC floor coatings, white wood topcoats		⩽ 2	1.478	4,500-7,000	⩽ 2.5	3H	++++	+	+++	++
TK3303	Polyester Acrylate	3	• Low viscosity, high hardness • Good yellowing resistance		⩽ 6	1.470	1,000-3,000	⩽ 2.5	HB	++++	++	+++	++
TK3309	Polyester Acrylate	3	• Good resistance to weather and yellowing • Good leveling and fullness • Suitable for white wood coatings		⩽ 1	1.120	50,000-100,000	⩽ 5.0	HB	++	++++	++	++

Polyester Acrylate

Product No.	Chemical Name	Functionality	Features & Uses		Color (Gardner)	Refractive Index (25℃)	Viscosity (CPS at 25℃)	Acid Value (mg KOH/g)	Pencil Hardness	Reactivity	Flexibility	Chemical Resistance	Adhesion
TK3310	Polyester Acrylate	3	• Low viscosity, excellent adhesion • Good pigment wetting and water-ink balance • Suitable for UV offset printing inks		⩽ 2	1.548	1,500-3,000	⩽ 1.0	HB	++++	+	+++	++++
TK3401	Polyester Acrylate	4	• Good pigment wettability • Good water-ink balance • Excellent adhesion • Suitable for offset printing ink		⩽ 9	1.658	75,000-90,000	⩽ 9.0	2H	++++	+	+++	++++
TK3402	Polyester Acrylate	4	• Good pigment wettability and dispersibility • Suitable for offset printing ink		⩽ 13	1.538	75,000-90,000	⩽ 9.0	2H	++++	+	+++	++++
TK3403	Polyester Acrylate	4	• Low viscosity, fast curing response • Good pigment wetting • Suitable for flexo printing ink		⩽ 1	1.483	800-1,200	⩽ 5	2H	++++	++	++	++
TK3404	Polyester Acrylate	4	• Low viscosity, fast curing speed • Good pigment wetting, good flexibility • Suitable for flexo printing ink		⩽ 1	1.474	1,000-2,000	⩽ 5	H	+++	+++	++	++
TK3405	Polyester Acrylate	4	• Low viscosity, fast curing speed • Good abrasion resistance • Good adhesion to BOPP film		⩽ 2	1.511	900-1,300	⩽ 5	HB	+++	++	++	+++
TK3406	Polyester Acrylate	4	• Good pigment wetting and pigment affinity • Good water-ink balance • Good heat resistance, low shrinkage • Suitable for offset printing ink		⩽ 4	1.507	65,000-100,000	⩽ 1.0	2H	+++	+	+++	++++
TK3407	Modified Polyester Acrylate	4	• Fast curing rate • Excellent water-ink balance • Excellent adhesion to difficult-to-adhere plastic substrates		⩽ 3	1.517	45,000-80,000	⩽ 5.0	HB	+++	+	+++	++++
TK3413	Polyester Acrylate	4	• Excellent leveling and fullness • Good toughness • For vacuum metallizing and wood coatings		⩽ 1	1.512	8,000-40,000	⩽ 3.0	H	++++	++	+++	++
TK3601	Polyester Acrylate	6	• Fast curing rate, low shrinkage • Good pigment affinity		⩽ 3	1.506	15,000-25,000	⩽ 2.0	3H	+++++	+	++	+++
TK3602	Polyester Acrylate	6	• Low viscosity, ultra high hardness • Good adhesion • Suitable for wood coatings and OPV		⩽ 3	1.422	2,500-5,000	⩽ 3.0	6H	++++	+	++	+++

Aliphatic Polyurethane Acrylate

Product No.	Chemical Name	Functionality	Features & Uses		Dilution (%)	Color (Gardner)	Refractive Index (25℃)	Viscosity (CPS at 25℃)	Pencil Hardness	Reactivity	Flexibility	Chemical Resistance	Adhesion
TK4201	Aliphatic Polyurethane Acrylate	2	• Good flexibility • Good resistance to weather and boiling water • For vacuum metallizing, wrinkle ink			⩽ 1	1.480	45,000-55,000	6B	+++	+++++	+++	+++
TK4202	Aliphatic Polyurethane Acrylate	2	• Good chemical resistance • Good flexibility, good wrinkle effect • Suitable for wrinkle ink			⩽ 1	1.476	110,000-130,000	6B	+++	+++++	+++	+++
TK4203	Aliphatic Polyurethane Acrylate	2	• Good resistance to yellowing and weather • Good boiling-water resistance • For cosmetic vacuum metallizing primer, UV nail polish-extension glue			⩽ 1	1.483	70,000-90,000 @40℃	<6B	+	++++	+++	+++
TK4204	Aliphatic Polyurethane Acrylate	2	• Good flexibility • Excellent yellowing resistance • For cosmetic vacuum metallizing primer, UV nail polish-extension glue			⩽ 1	1.484	120,000-140,000 @40℃	<6B	+	++++	++++	+++
TK4205	Aliphatic Polyurethane Acrylate	2	• Low viscosity • Excellent flexibility and elongation • Suitable for UV adhesives			⩽ 1	1.479	15,000-35,000	6B	+	+++++	+++	++++
TK4206	Aliphatic Polyurethane Acrylate	2	• Excellent flexibility and elongation • Suitable for UV adhesives			⩽ 2	1.479	15,000-30,000 @40℃	6B	+	+++++	+++	++++
TK4207	Aliphatic Polyurethane Acrylate	2	• Good wetting and leveling • Good yellowing resistance			⩽ 2	1.513	70,000-90,000	HB	++++	++	++	++
TK4208	Aliphatic Polyurethane Acrylate	2	• Good resistance to low temperature • Easy-to-matting performance • Good toughness			⩽ 80 (APHA)	1.481	6,300-14,700 @60℃	HB	+++	++++	+++	+++
TK4209	Aliphatic Polyurethane Acrylate	2	• Good adhesion • Good elongation • Suitable for UV glue			⩽ 1	1.464	10,000-15,000	<6B	+	+++++	+++	+++++
TK4210	Aliphatic Polyurethane Acrylate	2	• Good flexibility • Good plating performance • Good boiling-water resistance • For vacuum metallization primer, plastic coatings			⩽ 1	1.483	40,000-80,000	6B	++	++++	+++	+++
TK4211	Aliphatic Polyurethane Acrylate	2	• Good flexibility, high elongation • Good adhesion to glass/metal/plastic • Suitable for UV glue			⩽ 1	1.463	40,000-50,000	<6B	+	+++++	+++	+++++
TK4212	Aliphatic Polyurethane Acrylate	2	• Excellent leveling & fullness, good flexibility • Excellent plating performance • Good resistance to boiling water • Suitable for cosmetic vacuum metallization primer coatings			⩽ 1	1.480	40,000-80,000 @60℃	6B	+++	+++	+++	+++
TK4213	Aliphatic Polyurethane Acrylate	2	• Good plating performance, excellent flexibility • Good resistance to boiling water • Suitable for cosmetic vacuum metallization primer coatings			⩽ 1	1.480	15,000-35,000	6B	++	+++	+++	+++

Aliphatic Polyurethane Acrylate

Product No.	Chemical Name	Functionality	Features & Uses		Dilution (%)	Color (Gardner)	Refractive Index (25℃)	Viscosity (CPS at 25℃)	Pencil Hardness	Reactivity	Flexibility	Chemical Resistance	Adhesion
TK4213B	Aliphatic Polyurethane Acrylate	2	• Good plating performance, good flexibility • Good leveling and high curing rate • Good resistance to boiling water • Suitable for cosmetic vacuum metallization primer coatings			⩽ 1	1.480	15,000-35,000	6B	+++	+++	+++	+++
TK4215	Aliphatic Polyurethane Acrylate	2	• Good yellowing resistance • Excellent mechanical strength • Good hydrolytic resistance • Suitable for PVC coatings			⩽ 20 (APHA)	1.472	600-1,400 @60°C	B	+++	++++	+++	+++
TK4216	Aliphatic Polyurethane Acrylate	2	• Easy-to-matting • Good yellowing resistance, good flexibility • Suitable for PVC matte coatings			⩽ 60 (APHA)	1.492	600-1,100 @60°C	B	++	++++	+++	+++
TK4217	Aliphatic Polyurethane Acrylate	2	• Good leveling and pigment wetting • Good flexibility • Excellent mechanical strength • For PVC coating with high thimble resistance			⩽ 30 (APHA)	1.479	2,700-6,300 @60°C	B	+++	++++	+++	+++
TK4218	Aliphatic Polyurethane Acrylate	2	• Good flexibility • Good adhesion to plastic substrates • Suitable for difficult-to-adhere PVC substrates			⩽ 30 (APHA)	1.477	7,200-16,800 @60°C	<6B	+++	+++++	++++	++++
TK4219	Aliphatic Polyurethane Acrylate	2	• Good toughness • Excellent resistance to iodine tincture • Suitable for PVC iodine-resistant topcoat			⩽ 30 (APHA)	1.490	4,200-9,800 @60°C	H	+++	+++	++++	+++
TK4220	Aliphatic Polyurethane Acrylate	2	• Good adhesion to challenging solid wood • Excellent leveling performance • Suitable for wood adhesion primer coatings			⩽ 2	1.383	500-2,500	<6B	++	+++	+++	++++
TK4221	Aliphatic Polyurethane Acrylate	2	• Excellent adhesion to melamine board • Good flexibility • Suitable for melamine primer coatings			⩽ 2	1.383	300-2,500	<6B	++	++++	+++	++++
TK4228	Aliphatic Polyurethane Acrylate	2	• Excellent yellowing resistance • Good toughness and high hardness • Good scratch resistance • Suitable for white wood coatings			⩽ 1	1.383	8,000-35,000 @40°C	HB	++++	++	++	++
TK4229	Aliphatic Polyurethane Acrylate	2	• Good flexibility, elongation 122% • Good wetting and leveling			⩽ 1	1.473	8,000-16,000 @60°C	<6B	++	++++	+++	++
TK4230	Aliphatic Polyurethane Acrylate	2	• Excellent toughness and folding resistance • Good weather resistance • Good high-temperature chemical resistance		HDDA	⩽ 1	1.484	1,500-4,000 @60°C	<6B	+++	+++	++++	++
TK4240	Aliphatic Urethane Acrylate	2	• Good adhesion to nail • Good flexibility • Suitable for nail polish primer			⩽ 3	1.505	3,000-8,000	HB	++++	+++	++	+

Aliphatic Polyurethane Acrylate

Product No.	Chemical Name	Functionality	Features & Uses		Dilution (%)	Color (Gardner)	Refractive Index (25℃)	Viscosity (CPS at 25℃)	Pencil Hardness	Reactivity	Flexibility	Chemical Resistance	Adhesion
TK4241	Aliphatic Urethane Acrylate	2	• Good flexibility, good pigment wetting • Good yellowing resistance • For nail polish color layer			⩽ 1	1.515	6,000-12,000 @60℃	F	+	++++	+	++++
TK4242	Aliphatic Urethane Acrylate	2	• Fast curing speed • Good flexibility, good yellowing resistance • For nail polish color layer			⩽ 1	1.513	5,000-15,000 @60℃	H	++++	++	++	++
TK4243	Aliphatic Urethane Acrylate	2	• Good toughness, superior glossiness • Low heat release • Good solvent resistance • For nail gel extension gel and wipe-on top coat			⩽ 1	1.500	5,000-20,000 @60℃	H	++++	++	++	++
TK4301	Aliphatic Polyurethane Acrylate	3	• Good toughness, good adhesion • Suitable for BOPP/PET film and PVC scratch-resistant floor coatings			⩽ 5	1.499	110,000-130,000	B	++++	++	+++	++++
TK4301B	Aliphatic Polyurethane Acrylate	3	• Good yellowing resistance • Excellent flexibility • For BOPP/PET/OPP film coatings/inks			⩽ 2	1.513	70,000-100,000	HB	++++	+++	+++	++++
TK4302	Aliphatic Polyurethane Acrylate	3	• Good toughness, fast curing rate • Suitable for PVC flooring coatings			⩽ 3	1.525	60,000-90,000 @40℃	HB	+++++	+++	+++	+++
TK4303	Aliphatic Polyurethane Acrylate	3	• High reaction, good toughness • Good waterproof and heat resistance • Good vibration wear resistance • For PVC high-martindale-resistant coatings			⩽ 50 (APHA)	1.502	15,000-35,000 @60℃	HB	++++	+++	+++	+++
TK4308A	Aliphatic Polyurethane Acrylate	2	• Excellent self-matting performance • Low viscosity • Suitable for wood and PVC matte coatings			⩽ 100 (APHA)	1.457	200-500	B	+++	++	+++	+++
TK4308B	Aliphatic Polyurethane Acrylate	3	• Good self-matting performance • Low viscosity • Suitable for UV matte inks			⩽ 1	1.457	150-450	B	+++	++	+++	+++
TK4308C	Aliphatic Polyurethane Acrylate	2	• Low Irritation and low odor • Good self-matting performance • Suitable for UV matte coatings/inks			⩽ 80 (APHA)	1.460	200-800	B	+++	++	+++	+++
TK4350	Aliphatic Urethane Acrylate	3	• Excellent yellowing resistance after curing • Good compatibility with thiols • For nail polish topcoat			⩽ 1	1.487	1,000-3,000 @60℃	B	++++	++++	++	+++
TK4351	Aliphatic Urethane Acrylate	3	• Good toughness, good stability • Excellent yellowing resistance after curing • For nail polish topcoat and UV adhesives			⩽ 1	1.487	3,500-7,500 @60℃	HB	++++	++++	++	++

Aliphatic Polyurethane Acrylate

Product No.	Chemical Name	Functionality	Features & Uses		Dilution (%)	Color (Gardner)	Refractive Index (25℃)	Viscosity (CPS at 25℃)	Pencil Hardness	Reactivity	Flexibility	Chemical Resistance	Adhesion
TK4601	Aliphatic Polyurethane Acrylate	6	• High hardness, fast curing speed • High abrasion resistance • Good boiling-water resistance			⩽ 1	1.492	40,000-55,000	4H	++++	+	++++	++
TK4602	Aliphatic Polyurethane Acrylate	6	• Good yellowing resistance • Good adhesion • High resistance to boiling water			⩽ 1	1.488	10,000-20,000	2H	++++	+	++++	++
TK4604	Aliphatic Polyurethane Acrylate	6	• Good anti-graffiti performance • Good compatibility with various resins • High hardness • Suitable for anti-graffiti topcoat			⩽ 1	1.488	10,000-30,000	3H	++++	+	++++	++
TK4605	Aliphatic Polyurethane Acrylate	6	• High hardness • Good resistance to scratch and weather			⩽ 30 (APHA)	1.482	1,200-2,800 @60°C	4H	+++++	+	++++	+
TK4606	Aliphatic Polyurethane Acrylate	6	• High hardness • Good resistance to iodine tincture • Suitable for PVC iodine-resistant topcoat			⩽ 60 (APHA)	1.485	1,100-2,500 @60°C	2H	++++	+	+++	++
TK4608	Aliphatic Polyurethane Acrylate	6	• Low viscosity, high hardness • Good resistance to abrasion			⩽ 1	1.488	10,000-30,000	3H	+++++	+	++++	+
TK4609	Aliphatic Polyurethane Acrylate	6	• Good abrasion resistance • Good adhesion to plastic substrates			⩽ 1	1.488	40,000-80,000	2H	+++++	+	++++	++
TK4901	Aliphatic Polyurethane Acrylate	9	• Ultra high hardness • Good abrasion resistance • For coatings with hardness requirements			⩽ 2	1.492	55,000-75,000	6H	+++++	+	++++	++
TK4902	Aliphatic Polyurethane Acrylate	9	• High curing speed, high hardness • Excellent anti-fouling effect • Suitable for anti-fouling topcoat			⩽ 60 (APHA)	1.474	2,400-5,600 @60°C	4H	+++++	+	++++	++
TK4903	Aliphatic Polyurethane Acrylate	9	• High curing speed, high hardness • Good abrasion resistance • Good steel velvet resistance			⩽ 50 (APHA)	1.482	3,000-7,000 @60°C	4H	+++++	+	++++	++

Aromatic Polyurethane Acrylate

Product No.	Chemical Name	Functionality	Features & Uses		Dilution (%)	Color (Gardner)	Refractive Index (25°C)	Viscosity (CPS at 25°C)	Pencil Hardness	Reactivity	Flexibility	Chemical Resistance	Adhesion
TK5201	Aromatic Polyurethane Acrylate	2	• Good antiknock performance • Excellent flexibility and low shrinkage • Suitable for OPV with high flexibility			⩽ 1	1.491	110,000-140,000	<6B	++	+++++	+++	++
TK5202	Aromatic Polyurethane Acrylate	2	• Good flexibility • Low shrinkage			⩽ 1	1.476	70,000-90,000	<6B	+	+++++	+++	++
TK5203	Aromatic Polyurethane Acrylate	2	• Good flexibility, good adhesion • Good plating performance • Good resistance to boiling water			⩽ 1	1.598	40,000-60,000	<6B	++	+++	+++	++
TK5204	Aromatic Polyurethane Acrylate	2	• Easy-to-matting • Good flexibility • Suitable for PVC matte coatings			⩽ 120 (APHA)	1.480	2,000-7,000	B	++	++++	+++	+++
TK5205	Aromatic Polyurethane Acrylate	2	• Fast curing speed, good toughness • High mechanical strength • For PVC coating with resistance to thimble			⩽ 2	1.476	9,000-21,000 @60°C	<6B	++++	++++	+++	+++
TK5206	Aromatic Polyurethane Acrylate	2	• Good flexibility • Good adhesion to plastic substrates • For difficult-to-adhere PVC substrates			⩽ 40 (APHA)	1.491	900-2,100 @60°C	<6B	+++	+++++	++++	++++
TK5207	Aromatic Polyurethane Acrylate	2	• Good flexibility • Low shrinkage		TPGDA	⩽ 3	1.470	8,000-12,000	<6B	+	+++++	+++	++
TK5208	Aromatic Polyurethane Acrylate	2	• Easy to matt • Good flexibility, good stretching resistance • Suitable for PVC matte coatings			⩽ 80 (APHA)	1.480	3,000-7,000 @60°C	<6B	+++	+++++	+++	+++
TK5209	Aromatic Polyurethane Acrylate	2	• Good flexibility, elongation 150% • Hign cost performance			⩽ 1	1.475	5,000-9,000 @60°C	<6B	++	++++	+++	++
TK5301	Aromatic Polyurethane Acrylate	3	• High fullness, good flexibility • Fast curing rate			⩽ 3	1.478	65,000-80,000	6B	+++	++++	+++	++
TK5302	Aromatic Polyurethane Acrylate	3	• High hardness, high abrasion resistance • Good plating properties • For wood varnish and vacuum metallizing coatings			⩽ 2	1.520	110,000-140,000	3H	+++	+	++++	+++
TK5601	Aromatic Polyurethane Acrylate	6	• Fast curing speed, high abrasion resistance • High cost performance • Especially suitable for wood coatings			⩽ 3	1.581	70,000-90,000	2H	++++	+	++++	+++
TK5602	Aromatic Polyurethane Acrylate	6	• Fast curing speed • Good scratch resistance			⩽ 1	1.492	45,000-60,000	3H	++++	+	++++	+++
TK5603	Aromatic Polyurethane Acrylate	6	• Fast curing speed, high hardness • Good scratch resistance			⩽ 80 (APHA)	1.489	700-1,800 @60°C	3H	++++	+	++++	+++
TK5901	Aromatic Polyurethane Acrylate	9	• Ultra-high hardness • Good abrasion resistance			⩽ 2	1.501	55,000-75,000	4H	++++	+	++++	++

Full Acrylate

Product No.	Chemical Name	Functionality	Features & Uses		Dilution (%)	Color (Gardner)	Refractive Index (25°C)	Viscosity (CPS at 25°C)	Pencil Hardness	Reactivity	Flexibility	Chemical Resistance	Adhesion
TK6101	Full Acrylate	Polyfunctional	• Excellent adhesion • For OPV, wood coatings, screen printing ink, etc.		HDDA	⩽ 1	1.467	20,000-30,000	HB	+	+++	+	++++
TK6201	Full Acrylate	2	• Good flexibility • Good adhesion to difficult substrates • For primer varnish to untreated PET, PP, etc.		TPGDA 40	⩽ 3	1.480	5,000-10,000 @60°C	<6B	+	+++	+	++++
TK6202	Full Acrylate	2	• Good flexibility • Good adhesion to difficult substrates • For difficult-to-adhere substrates coatings		HDDA TPGDA	⩽ 3	1.486	15,000-30,000 @60°C	<6B	+	+++	+	++++
TK6301	Full Acrylate	Polyfunctional	• Low odor • Good adhesion on lamination paper • For primer-free OPV, screen printing ink, etc.		TPGDA	⩽ 2	1.490	60,000-80,000	HB	+++	++	++	+++++
TK6303	Full Acrylate	Polyfunctional	• Good compatibility, good solvent resistance • Suitable for various substrates			⩽ 1	1.471	40,000-50,000	HB	++	++	+++	+++++
TK6304	Full Acrylate	Polyfunctional	• Low viscosity, good leveling • Good adhesion • Suitable for various substrates			⩽ 1	1.476	2,000-5,000	B	+++	++	++	+++++
TK6305	Full Acrylate	Polyfunctional	• Excellent adhesion, good flexibility • For nail polish primer			⩽ 1	1.475	60,000-75,000	B	++	++++	++	++++
TK6306	Full Acrylate	Polyfunctional	• Excellent adhesion on various paper • Suitable for different paper package inks		HDDA	⩽ 1	1.467	20,000-30,000	HB	++	++	++	+++++
TK6307	Full Acrylate	Polyfunctional	• Good adhesion on various substrates • High cost performance			⩽ 1	1.475	1,000-3,000	B	+	++	++	+++++

Amine Synergist

Product No.	Chemical Name	Functionality	Features & Uses		Color (Gardner)	Refractive Index (25°C)	Viscosity (CPS at 25°C)	Amine Value (mg KOH/g)	Reactivity	Hardness	Flexibility	Chemical Resistance	Adhesion
T-113	Amine Synergist	n.a.	• Improve curing rate		≦ 3	1.464	60-100	220-250	++++	++	+++	+	+
T-114	Amine Synergist	n.a.	• Light color, low odor • Good resistance to yellowing		≦ 3	1.457	300-700	85-120	++++	+++	+++	++++	+
T-115	Amine Synergist	n.a.	• High curing rate • Good adhesion to plastic substrates		≦ 3	1.458	800-1,600	90-150	++++	+++	+++	++++	+++

Phosphate Acrylate

Product No.	Chemical Name	Functionality	Features & Uses		Color (Gardner)	Refractive Index (25°C)	Viscosity (CPS at 25°C)	Acid Value (mg KOH/g)	Pencil hardness	Reactivity	Flexibility	Chemical Resistance	Adhesion
T-201	Phosphate Acrylate	2	• Promote adhesion to wood substrates • Especially for wood coatings		⩽ 12	1.458	600-1,400	270-340	< 6B	+	-	+++	+++++
T-301	Phosphate Acrylate	3	• Promote adhesion to metal • For metal coatings and vacuum metallizing		⩽ 7	1.460	500-1,300	160-220	-	+	-	+++	+++++

Modified Acrylate

Product No.	Chemical Name	Functionality	Features & Uses		Color (Gardner)	Refractive Index (25°C)	Viscosity (CPS at 25°C)	Acid Value (mg KOH/g)	Pencil hardness	Reactivity	Flexibility	Chemical Resistance	Adhesion
TK7301	Modified Acrylate Oligomer	3	• Excellent adhesion to metal • Good compatibility, fast cure response • For cosmetic vacuum metallizing topcoat		⩽ 1	1.458	1,000-2,000	-	-	+++	++	+++	++
TK7401	Modified Acrylate Oligomer	4	• Ultra-high hardness, fast curing rate • Good abrasion resistance, high gloss		⩽ 3	1.479	2,000-3,500	⩽ 1.0	4H	++++	+	++	+++
TK7601	Modified Acrylate Oligomer	6	• Ultra-high hardness, fast curing rate • Good abrasion resistance		⩽ 6	1.479	800-1,500	⩽ 1.0	4H	++++	+	++	+++

UV Monomers

Product No.	Chemical Name	Functionality	Features & Uses		Color (APHA)	Refractive Index (25°C)	Viscosity (CPS at 25°C)	Acid Value (mg KOH/g)	Reactivity	Hardness	Flexibility	Chemical Resistance	Adhesion
TK1101	2-Hydroxyethyl methacrylate (HEMA)	1	• Low viscosity • Good adhesion		⩽ 25	1.450	3-8	⩽ 0.2	+	++	++	++	+++
TK1102	2-phenoxyethyl acrylate (PHEA)	1	• High reactivity • High refractive index		⩽ 100	1.519	8-22	⩽ 0.3	+++	+	+++	++	+++
TK1201	Tripropylene glycol diacrylate (TPGDA)	2	• Low volatility • Good flexibility		⩽ 50	1.449	8-16	⩽ 0.5	++	++	++	++	++
TK1202	Dipropylene glycol diacrylate (DPGDA)	2	• Low volatility • Fast curing rate		⩽ 50	1.449	7-13	⩽ 0.3	++	++	++	++	++
TK1203	1,6-Hexanediol diacrylate (HDDA)	2	• Good adhesion on plastic substrates • Good weather resistance		⩽ 50	1.452	5-12	⩽ 0.3	++	++++	+	+++	+++
TK1301	Trimethylolpropane triacrylate (TMPTA)	3	• High cross-linking density • High hardness • High abrasion resistance		⩽ 50	1.472	60-110	⩽ 0.3	++++	++++	+	++++	+
TK1302	Ethoxylated Trimethylolpropane Triacrylate (EO3-TMPTA)	3	• Low irritation • Good flexibility		⩽ 50	1.469	50-70	⩽ 0.5	+++	+++	++	+++	++
TK1303	Propoxylated Glycerol Triacrylate (PO3-GPTA)	3	• Low irritation • Good pigment wetting		⩽ 50	1.461	70-110	⩽ 0.5	+++	++	+++	++	+++
TK1304	Pentaerythritol triacrylate (PE3TA)	3	• Excellent solvent resistance • High hardness • High abrasion resistance		⩽ 50	1.482	400-1,200	⩽ 0.5	++++	+++++	+	+++++	+
TK1401	Di-Trimethylolpropane Tetraacrylate (DITMPTA)	4	• High cross-link density • Good wear resistance		⩽ 60	1.487	300-1,000	⩽ 0.4	+++++	++++	+	++++	+
TK1601	Dipentaerythritol Hexaacrylate(DPHA)	6	• High reactivity • High cross-link density		⩽ 100	1.488	4,000-7,000	⩽ 0.2	+++++	+++++	+	++++	+

Water-based Oligomers

Product No.	Chemical Name	Functionality	Features & Uses		Efficient content（%）	Viscosity (CPS at 25°C)	PH Value	Particle size(nm)	Reactivity	Flexibility	Chemical Resistance	Adhesion
WB101	Water-Based Acrylic Emulsion	1K	• Low temperature film forming, Tg 20°C • Excellent wet film clarity • For water-based wood primer/top coatings		40±2	50-300	6.5-8.5	⩽ 200 Anionic type	+	+++++	++	++++
WB102	Water-Based Acrylic Emulsion	1K	• Excellent adhesion to metal, wood, plastic, melamine • Excellent chemical and physical resistance • Good compatibility of color paste • For printing inks and vacuum aluminized film		44±2	⩽ 500	7.0-8.0	⩽ 150 Anionic type	++	+++++	++	++++
WB121	Water-Based Acrylic Emulsion	2K	• Hydroxyl value 1.6% • Good adhesion to wood substrate • Good water and solvent resistance • Good wet film clarity • For water-based wood primer/top coatings		40±2	50-300	6.5-8.5	⩽ 200 Anionic type	+++	+++	+++	++++
WB122	Water-Based Acrylic Emulsion	2K	• High hardness, excellent adhesion • Excellent chemical resistance • For water-based abrasion-resistant wood topcoat		40±2	50-300	6.5-8.5	⩽ 200 Anionic type	++	+++	++	++++
WB231	Waterborne Aliphatic Polyurethane	3	• Hydroxyl value 3.0% • Good adhesion to various substrates • With physical curing properties • For water-based wood adhesion primer		50±2	1,000-1,500	6.0-8.0	⩽ 150 Anionic type	++	+++++	++	++++
WB232	Waterborne Aliphatic Polyurethane	3	• Good adhesion to various substrates • Excellent flexibility • With physical curing properties		40±2	500-1,000	5.5-8.0	⩽ 150 Anionic type	+++	+++++	+	++++
WB241	Waterborne Aliphatic Polyurethane	4	• Excellent flexibility • Good adhesion to soft PVC substrates • Suitable for soft PVC primer		42±2	＜ 1,000	6.0-8.0	⩽ 150 Anionic type	+++	+++++	++	+++++
WB242	Waterborne Aliphatic Polyurethane	4	• Good overall performance • Easy to matt		42±2	＜ 1,000	6.0-8.0	⩽ 150 Anionic type	++++	+++	++++	+++++
WB243	Waterborne Aliphatic Polyurethane	4	• High hardness, good abrasion resistant • Easy to matting • For high abrasion-resistant/matte topcoats		40±2	＜ 300	7.0-9.0	⩽ 150 Anionic type	++++	+++	++++	+++++
WB244	Waterborne Aliphatic Polyurethane	4	• Good flexibility • Good crack resistance • Excellent scratch resistance		35±2	＜ 1,000	6.0-8.0	⩽ 150 Anionic type	+++	++++	+++	++++
WB246	Waterborne Aliphatic Polyurethane	4	• Self-matting • Good scratch resistance • Suitable for plastic matt topcoat		45±2	＜ 1,000	5.5-8.5	⩽ 150 Anionic type	+++++	+++	+++++	++++
WB262	Waterborne Aliphatic Polyurethane	6	• High hardness, solvent free • Excellent yellowing resistance • Good abrasion resistance • Suitable for high gloss coating		50±2	＜ 1,000	6.0-8.0	⩽ 150 Anionic type	+++++	++	+++++	+++++

Water-based Oligomers

Product No.	Chemical Name	Functionality	Features & Uses		Efficient content（%）	Viscosity (CPS at 25℃)	PH Value	Particle size(nm)	Reactivity	Flexibility	Chemical Resistance	Adhesion
WB264	Waterborne Aliphatic Polyurethane	6	• Excellent fullness after curing • Good adhesion • Suitable for high gloss coating		42±2	＜ 1,000	6.0-8.0	⩽ 150 Anionic type	++++	+++	++++	+++++
WB281	Waterborne Aliphatic Polyurethane	8	• Good stain and graffiti resistance • High hardness, high abrasion resistance		55±2	＜ 1,500	7.0-9.0	⩽ 150 Anionic type	+++++	+	+++++	+++++
WB341	Water-soluble Aliphatic Polyurethane Acrylate	4	• High gloss, good fullness • Can be diluted with water		90±2	2,000-4,000 @60℃	6.0-8.0	⩽ 150 Anionic type	+++	++	++++	+++++
WB342	Alcohol-soluble Aliphatic Polyurethane Acrylate	4	• High gloss, good fullness • Can be diluted with solvents		100	2,000-4,500 @60℃	6.0-8.0	⩽ 150 Anionic type	+++	++	+++	+++++
WB381	Water-soluble Aliphatic Polyurethane Acrylate	8	• High hardness, high gloss and fullness • Good wear resistance		90±2	500-1,500 @60℃	7.0-9.0	⩽ 150 Anionic type	+++++	+	+++++	+++++

Reference Standard of Performance Evaluation

	+	+++++
Hardness	low	excellent
Reactivity	low	excellent
Flexibility	low	excellent
Chemical Resistance	low	excellent
Adhesion	low	excellent

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