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Product Guide 2026

Eco-friendly Water-based Acrylic Emulsion Adhesive / PSA Technology Company

Advanced Polymer Emulsions Company · Ansan, Korea



APEC, Ltd.
Advanced Polymer Emulsions Company



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Company Introduction

APEC, Ltd. APEC, established in 1996, specializes in R&D and manufacture of eco-friendly waterborne acrylic emulsion adhesives, PSAs (Pressure Sensitive Adhesives), waterborne PUD (Polyurethane Dispersion) and AUD (Acrylic Urethane Dispersion). With its mission to contribute to human health enhancement and natural environment conservation by endeavoring to convert solvent-based adhesives into water-based ones, APEC has grown with its customers through collaborative, intensive R&D for three decades. Committed to creating customer value and enabling green growth, APEC is determined to provide environment-friendly, global-standard products for the market.

Quality and Agility

Our technological competence in emulsion polymerization process, based on knowledge and experience, meets increasing customer demand for high quality and sustainable options in no time.

1996

Founded · incorporated in 2000

Ansan, Korea

Banwol Industrial Complex
· Factory 2 (2017)

Corporate R&D Institute

Accredited 2002 · R&D Center built 2013

ISO 9001 · 14001

Quality & environmental management

Contents

01 Pressure Sensitive Adhesives 37

03 Inks & Coatings 45

05 Specialty & Functional Emulsions 11

02 Architectural Coatings & Construction 48

04 Textile, Non-woven & Adhesives 10

06 Polyurethane Dispersions 22

Historical Milestones

Historical Milestones

2026	05	Built an AI server room	2010	11	Patent registration of Cationic resin composition for aqueous gravure printing
2025	12	Gyeonggi Province Governor's Commendation – Chemical Handling Business Representatives Association	10		Minister of Knowledge Economy Award received by the CEO
2023	05	Technology Award, 33rd Ansan Commerce & Industry Awards (No. 2023-0093)	05		Certified as a CLEAN business
2022	12	Minister of Trade, Industry and Energy Award for New Technology Commercialization	2009	08	Conducted the Specialized Development Project of the Ministry of Knowledge Economy – Developed an eco-friendly and water-based acrylic adhesive
2019	12	The 28th Dasan Technology Award received by the CEO Patent registration of Contamination-improved Cool Roof Coating Paint	06		Certified as an Inno-Biz (SMEs and Startups Office)
2018	11	Completed the Business Consultation Program supported by Korea Industrial Complex Corporation	05		Certified as a venture business (Gyeonggi Regional SMEs and Startups Office)
	01	Joined the Council for Facilities Handling Hazardous Chemicals Implemented the 3P5C system (3P: Proper Material, Proper Quantity, Proper Place; 5C: Composition, Coordination, Cleaning, Cleanliness, Carriage of Attitude)	2008	12	Quality Management System Certification (KS Q ISO 9001:2009/ISO 9001:2008)
2017	11	Establishment of Factory 2 (27, Seonggok-ro 134beon-gil) Patent registration of acrylic emulsion infrared solar reflective waterproofing and floor coating composition	2007	04	Conducted the Technology Innovation and Development Project of SMEs and Startups Office – Cationic emulsion manufacturing technology for water-based gravure printing
2016	07	Patent registration of Aqueous copolymer Latex for Food Packaging Containers	03		Environment Management System Certification (KS A 14001:2004/ISO 14001:2004)
	03	Started the Business Consultation Program supported by Korea Industrial Complex Corporation	01		Relocation of the attached laboratory
2015	11	Minister of Trade, Industry and Energy Award of the Korea Materials & Components Industry Week received by the CEO	2006	11	Agreement of technical alliance and supply with BASF Resins Co., Ltd.
	10	Presidential Award of the 7th Chemical Industry Day received by the CEO Trademark registration of ACROTEK	06		Certified as a CLEAN business
	08	Trademark registration of ACRYCOTE	2005	12	Certified as a venture business (Gyeonggi Regional SMEs and Startups Office)
	04	Trademark registration of APOND	04		Minister of Science and ICT Award received by the CEO
2014	08	Patent registration of Non-slip Mat	2002	09	ISO 9001 Certification (No.: CI/3746)
	02	Chief Technology Officer Award of Korea Industrial Technology Association received by the CEO	01		Company laboratory certification (No.: 20021078)
2013	12	Establishment of the R&D Center (24, Manhae-ro 230beon-gil) Patent acquisition of Acrylic adhesive compositions for protective film	2001	06	Agreement of technical alliance and supply with Johnson Polymer Limited
2011	07	Patent registration of Composition of Water-born Adhesive for Dry Lamination and laminates	2000	08	Relocated to Banwol Industrial Complex in Gyeonggi-do (present)
	06	Received the 5th Future Packaging Technology Award of Korea Institute of Industrial Technology	06		Converted as a corporate
			1996	05	Establishment of APEC

2010 12 Eco-friendly and water-based acrylic adhesive technology (NET) certification for flexible packaging

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01 PSA

Pressure Sensitive Adhesives

High performance, versatile solutions for a wide range of applications.

APEC's PSA products are designed to deliver excellent adhesion, durability and processing efficiency. From general purpose labels to high-performance specialty applications, we provide tailored solutions for your needs.



Key Advantages



Strong Adhesion & Cohesion



Excellent Processability



Wide Substrate Compatibility



Stable Quality & Consistency

Typical Applications



Labels & Packaging



Flexible Packaging



Tapes & Films



Specialty Materials

Product Lineup

Test basis: coated on PET 25 µm film at 25 µm dry thickness. 180° peel on SUS 304 (gf/in); ball tack: J. Dow rolling ball (No.); SAFT: 1 kg shear.

1 Permanent Label Adhesives (General Purpose & High Performance)

- Excellent adhesion to paper, film and metallized labels
- Good heat and water resistance
- Grades for low-viscosity and slot-die coating

Key Features

- High initial tack and peel strength
- Excellent holding power
- Wide range of applications

Product Code	Solid (%)	Viscosity (cps)	pH	180° Peel (gf/in)	Ball tack (No.)	SAFT (1 kg)	Applications
APA-56-1	54~56	900~1,100	7.5~8.5	800~1,200	—	—	Permanent, film labels (OPP/PE/PVC)
APA-F018	59.5~60.5	5,000~7,000	8.0~8.5	800~1,000	19~21	> 10 h @60 °C	Permanent, high tack, heat-resistant
APA-F019H	59.5~60.5	7,000~9,000	8.0~8.5	≥ 1,500	19~20	15 min @60 °C	Permanent, high adhesion (film labels)
AAC-F702	54~56	700~1,000	7.5~8.5	≥ 1,300	—	—	Permanent, high adhesion (film labels)

Product Code	Solid (%)	Viscosity (cps)	pH	180° Peel (gf/in)	Ball tack (No.)	SAFT (1 kg)	Applications
APA-F028S	58~59	7,000~9,000	8.0~8.5	1,400~1,500	24~26	1 h @80 °C	Permanent, high adhesion
APA-F410	57~58	6,000~8,000	8~9	≥ 1,400	18~20	1 h @60 °C	Permanent, high adhesion
APA-F018L	59.5~60.5	500~1,000	8.0~8.5	800~1,100	24~28	1 h @80 °C	General labels, low viscosity
APA-F018S	59.5~60.5	5,000~7,000	8.0~8.5	800~1,100	24~28	1 h @80 °C	General labels, slot-die coating
APA-F450	58.5~59.5	6,000~10,000	8~9	900~1,100	24~26	> 1 h @60 °C	Film and metallized labels
APA-F400	58.5~59.5	7,000~9,000	8~9	1,200~1,600	24~26	> 10 h @80 °C	Battery labels
APA-F900T	45.5~46.5	1,000~1,300	8~9	≥ 2,000	20~22	> 2 h @60 °C	Baggage tags
APA-F728	38~39	1,300~1,700	8~9	≤ 50	≤ 4	–	Paper/PET labels, 2-component
APA-F730	38~39	1,300~1,700	8~9	≤ 50	≤ 4	–	Paper/PET labels, 2-component

2 Removable Label Adhesives

- Clean removal without residue
- Low, medium and high adhesion levels
- Suitable for labels, notes and cup labels

Key Features

- Repositionable adhesion
- Low tack, easy release
- Excellent surface compatibility

Product Code	Solid (%)	Viscosity (cps)	pH	180° Peel (gf/in)	Ball tack (No.)	SAFT (1 kg)	Applications
APA-F250	51~52	1,000~1,300	8~9	70~130	8~10	1 h @120 °C	Removable, low adhesion
APA-F260	57~59	7,000~9,000	8~9	200~300	12~15	1 h @120 °C	Removable, medium adhesion
APA-F270	58~59	6,000~8,000	8~9	400~500	25~27	1 h @120 °C	Removable, high adhesion
APA-F255	55~57	1,000~1,300	7~9	100~110	12~15	> 2 h @80 °C	Removable, medium adhesion
APA-F280	52~54	1,000~1,300	7~9	200~300	15~18	1 h @80 °C	Removable, cup labels

3 Low-temperature Label Adhesives

- Adhesion at low application temperature
- Cold and oil resistance
- Suitable for refrigerated and frozen goods

Key Features

- Flexible at low temperature
- Good water resistance
- Stable peel in cold storage

Product Code	Solid (%)	Viscosity (cps)	pH	180° Peel (gf/in)	Ball tack (No.)	SAFT (1 kg)	Applications
APA-F023	55~56	850~2,400	8~9	800~1,300	23~25	> 1 h @60 °C	Low-temperature labels

Product Code	Solid (%)	Viscosity (cps)	pH	180° Peel (gf/in)	Ball tack (No.)	SAFT (1 kg)	Applications
APA-F022	54.5~55.5	850~950	8~9	600~800	23~25	> 1 h @60 °C	Low-temperature labels, oil-resistant
APA-F023R	55~56	2,300~2,700	8~9	700~1,200	23~27	30 min @60 °C	Low-temperature labels

4

Low Surface Energy Adhesives

- Designed for PU, PE, EVA and EPDM foams
- High initial tack and adhesion
- Excellent durability and aging resistance

Key Features

- Adhesion to PE, PP, PET, EVA and more
- Good chemical resistance
- Stable performance in various conditions

Product Code	Solid (%)	Viscosity (cps)	pH	180° Peel (gf/in)	Ball tack (No.)	SAFT (1 kg)	Applications
APA-F013	59~60	20,000~30,000	8~9	≥ 1,000	≥ 16	> 1 h @80 °C	LSE substrates (PU, PE, EVA, EPDM foam)
APA-F090	59~60	20,000~25,000	8~9	≥ 1,300	–	–	LSE substrates, high tack
APA-F350	51.8~52.5	2,800~3,300	8~9	≥ 1,000	≥ 15	> 1 h @60 °C	LSE substrates, flame-retardant

5

Flame Retardant & Automotive Adhesives

- Excellent flame retardancy
- Good adhesion and heat resistance
- Suitable for non-woven and automotive seat applications

Key Features

- Flame retardant performance
- Thermal stability
- Suitable for hard-to-bond substrates

Product Code	Solid (%)	Viscosity (cps)	pH	180° Peel (gf/in)	Ball tack (No.)	SAFT (1 kg)	Applications
APA-F027E	59~61	10,000~14,000	8.0~8.5	≥ 2,500	≥ 32	< 1 h @60 °C	Flame-retardant, non-woven
APA-F030H	59~61	18,000~20,000	8.0~8.5	≥ 1,700	≥ 32	< 1 h @60 °C	Flame-retardant, non-woven
APA-F350-1	59~60	18,000~20,000		≥ 2,500	≥ 32	1 h @60 °C	Flame-retardant, automotive interior

6 Tape Adhesives

- Grades for PP, paper, aluminum and PVC tapes
- Masking, athletic and medical tapes
- Balanced tack, peel and holding power

Key Features

- Good anchorage to backing
- Clean unwind and converting
- Consistent quality

Product Code	Solid (%)	Viscosity (cps)	pH	180° Peel (gf/in)	Ball tack (No.)	SAFT (1 kg)	Applications
AAC-0180	59~60	15,000~19,000	8.0~8.5	800~900	9~10	> 1 h @100 °C	Medical tape
APA-F003	64.3~65.3	≤ 25,000	8~9	900~1,400	22~26	< 1 h @80 °C	Athletic tape
APA-F005	54~56	2,000~3,000	7~9	1,000~1,200	8~9	> 10 h @100 °C	PVC insulation tape
APA-F010	59~60	20,000~25,000	8~9	1,500~1,700	19~20	> 1 h @60 °C	Aluminum tape
APA-F025	57~58	13,000~18,000	8.0~8.5	500~600	10~11	> 10 h @100 °C	Masking tape
APA-F900	54~56	2,000~3,000	7~9	1,300~1,500	15~16	> 1 h @80 °C	Paper tape

7 PVC Interior Film Adhesives

- For decorative PVC interior films
- Permanent and removable types
- Flame-retardant grade available

Key Features

- High adhesion to PVC
- Good plasticizer resistance
- Smooth application

Product Code	Solid (%)	Viscosity (cps)	pH	180° Peel (gf/in)	Ball tack (No.)	SAFT (1 kg)	Applications
AAC-4000-4	63~65	10,000~14,000	7.8~8.6	800~1,000	7~8	> 10 h @100 °C	PVC interior film
APA-F210	55.5~56.5	900~1,200	8~9	400~500	20~24	> 1 h @80 °C	PVC interior film, removable
SB-A4	54~56	2,000~3,000	7~9	800~900	5~6	> 10 h @80 °C	PVC interior film, flame-retardant
APA-F001C	58~60	1,500~8,000	7~9	1,100~1,300	25~29	> 1 h @60 °C	PVC interior film

Test basis: coated on PET 25 µm film at 25 µm dry thickness. 180° peel on SUS 304 (gf/in); ball tack: J. Dow rolling ball (No.); SAFT: 1 kg shear.

02 ARCHITECTURAL

Architectural Coatings & Construction

Durable, eco-friendly solutions for modern living spaces.

APEC provides high-performance waterborne coatings and binders for architectural and construction applications, combining excellent durability, weather resistance and environmental sustainability.



Key Advantages



Excellent Weatherability



High Durability & Adhesion



Low VOC & Eco-Friendly



Wide Range of Applications

Typical Applications



Interior & Exterior Paints



Waterproofing & Putty



Sealants & Caulks



Construction Binders

Product Lineup

1 Exterior Paints, Finishes & Stone Coat

- Binders for exterior finish and top coats
- Excellent water and whitening resistance
- Good compatibility with inorganic pigments
- Acrylic-silicone top coat grade for weather resistance

Key Features

- High gloss and hardness grades
- UV and weather resistance
- Strong adhesion to substrates

Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
AP-99	45~46	8.5~9.5	≤ 2,000	-11	Finishes, stone coat	Water resistance, adhesion
AP-184	44~46	8~9	≤ 4,000	-12	Top coats, self-crosslinking	High gloss, hardness, water and weather resistance
AP-184-8	44.5~45.5	7.5~9.0	500~3,000	-8	Finishes, stone coat, waterproofing	Water and whitening resistance, adhesion
AP-1840-3	45.5~46.5	7~8	2,000~8,000	-24	Finishes, stone coat, waterproofing	Water and whitening resistance, adhesion
AP-1846	44~46	7~9	1,000~6,000	-13	Finishes, stone coat, waterproofing	Water and whitening resistance, adhesion
AP-261	49.0~50.5	7~8	≤ 2,000	12	Exterior paints	Pigment compatibility, water and alkali resistance

Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
AP-61360	49~51	7~9	600~1,300	0	Exterior paints	Pigment compatibility, water and alkali resistance
AP-0510	44~46	7~9	100~200	-14	Paints and coatings	High gloss, anti-blocking, wet-tack adhesion
AP-10M	46~48	8~9	200~500	1	Clear top coat	Adhesion to metal and glass
AP-424B	39.5~40.5	6.8~7.8	≤ 100	-15	Weather-resistant top coats	Ultra-low VOC, water and weather resistance
AP-9922	45.0~45.5	8~9	≤ 10,000	-12	Architectural finishes, stone coat	Water resistance, adhesion

2

Elastomeric & Roof Waterproofing Coatings

- High elongation and crack bridging
- Durability and dirt pick-up resistance
- Penetrating water repellent grade available

Key Features

- Flexible at low temperature
- Adhesion to concrete and PU foam
- Waterproof, breathable films

Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
AP-2312	52~54	7.5~8.5	≥ 500	-23	Roof waterproofing, intermediate coat	Durable, UV-resistant, flexible at low temperature
AER-18M	54~55	8~9	≤ 300	-40	Elastomeric roof coatings	Weather and dirt pick-up resistance, high reflectivity
AP-1231	54~56	7~9	≤ 500	-38	Elastomeric roof coatings	Weather resistance, adhesion to PU foam
AP-1850	53~55	7~9	≥ 500	MFFT 0	Elastomeric coatings	Flexible, tough, weather-resistant
ACO-450	47~49	7~9	300~800	-7	Roof waterproofing paints	Patterned finish, attractive appearance
AP-3290-1	54~56	7.5~8.3	≤ 2,000	-20	Flexible waterproof coatings, mortar	Adhesion, water and alkali resistance
AP-2611	52~54	7.5~8.5	≥ 500	-32	Waterproofing, mastic	Flexible, water-resistant
AP-0333	41.5~42.5	7.5~9.0	50~1,000	-11	Penetrating water repellents	Water repellency, stain resistance, breathable
AP-1858	54~56	7~9	≤ 500	-42	Exterior finish paints	Durable, UV-resistant, flexible at low temperature

3 Interior Paints, Putty & Low-VOC Binders

- Solvent-free, APEO-free formulations
- Low odor for interior use
- Good scrub resistance and hiding

Key Features

- Ultra-low VOC grades
- Workability and adhesion
- High-gloss enamel-like grade

Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
ASF-124	44~46	7~9	≤ 100	0	Interior paint, solvent-free	APEO-free, low odor, thixotropic
AP-6133-2	49~51	8~10	≤ 500	-13	Interior putty	Water resistance, workability, adhesion
AP-3960	49~51	7~9	2,000~5,000	4	Low-VOC paints	Ultra-low VOC
AAV-820	47.5~49.5	7.0~8.5	≤ 1,000	-10	Architectural paints, concrete protection	High elasticity
SW-362D	45~47	7~9	≤ 1,500	15	Gloss and semi-gloss paints	High gloss, hardness, water and block resistance

4 Interior Elastomeric & Multicolor Paints

- Binders for interior elastomeric paints
- Binder for multicolor (multi-fleck) paints
- Low-viscosity, eco and winter grades

Key Features

- Water resistance
- Interior and exterior use
- Easy formulation

Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
AP-3303	41~43	7~9	≤ 2,000	2	Interior elastomeric paints	Water resistance, elasticity, scratch resistance
AP-3303 ECO	41~43	7.0~7.6	4,000~8,000	2	Interior elastomeric paints, low voc	Low VOC
AP-3303LV	41~43	7.0~8.5	500~2,000	-10	Interior elastomeric paints, low viscosity	Low viscosity
AP-3308	41~43	7.5~8.0	≤ 10,000	2	Interior elastomeric paints, winter grade	Low-temperature flexibility, low VOC
ASA-0421	50~51	6~7	4,000~7,000	2	Multicolor paints	Elongation, breathable, waterproof
AP-4503	39.5~41.5	7.5~8.5	400~1,000	-9	Interior elastomeric paints	Low solids, high elasticity

5 Cement Mortar, Sealant & Construction Binders						
- Mortar modifiers and bonding agents - Sealants, crack repair and textured finishes - Primer and ceramic-hybrid binders				Key Features - Alkali and water resistance - Improved strength and workability - Tack-free, high elasticity		
Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
AP-3521	46~48	7~9	≤ 500	0	Cement mortar modifier	Workability, alkali and water resistance
AP-3441B-2	46~48	8.5~10.0	≤ 500	-10	Cement mortar modifier	Improved strength, breathable, workable
AP-3441LT	45.5~47.5	8~9	50~500	-21	Mortar bonding agent	Compatibility, workability
AP-3441LTA	45.5~47.5	6.5~7.5	50~500	-21	Primer, mortar, ceramic hybrid	Adhesion, compatibility with inorganics
AP-2601	60~61	6.5~7.5	≤ 500	-39	Sealants	Tack-free, high elasticity, high solids
AP-4061	59~61	4~6	2,000~4,000	-55	Sealants	Water resistance, elasticity, stability
AP-6200	54~55	8.5~9.5	1,000~2,000	-20	Crack repair, exterior finishes	Water resistance, flexibility, pigment compatibility
AP-2960	49~51	7~9	13,000~30,000	0	Adhesives, coatings, textured finishes	Clear film, plasticizer-free, compatible
AP-6136	49~51	7~9	≤ 1,000	19	Textured and floor paints	Abrasion resistance, freeze-thaw stability

6 EPS Binders						
- Binders for EPS foam coating and blending - Strong fusion strength - Hard and standard grades				Key Features - Water resistance - Adhesion to EPS - Easy application		
Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
AP-3330	41~43	7.5~8.5	500~2,000	30	EPS binder	Foam coating, high fusion strength, water-resistant
AP-3330N	54.5~55.5	7~9	≤ 2,000	30	EPS binder	Foam coating, water-resistant

7 Thickeners (Alkali-swellable, ASE / HASE)

- Rheology control for waterborne paints
- Sag resistance and anti-settling
- Post-addition viscosity adjustment

Key Features

- Spatter resistance and leveling
- Thixotropic flow
- Dilution stability

Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
APT-160	29~31	2~3	≤ 100	23	Alkali-swellable thickener (ASE)	Texture, sag resistance, spatter resistance
APT-180	29~31	2~3	≤ 100	34	Alkali-swellable thickener (HASE)	Spatter resistance, leveling, dilution stability
APT-206	29.5~30.5	2.0~3.5	≤ 100	38	Alkali-swellable thickener (HASE)	Sag resistance, anti-settling, post-addition
APT-310	29.5~30.5	2~3	≤ 100	33	Alkali-swellable thickener (HASE)	Sag resistance, anti-settling, post-addition
APT-320	29.5~30.5	2~3	≤ 100	34	Alkali-swellable thickener (HASE)	High low-shear viscosity, thixotropic

8 Pigment Dispersant

- Waterborne dispersant for inorganic pigments
- Stable pigment grinds
- Easy incorporation into paints

Key Features

- Dispersion of inorganic pigments
- Low foaming
- Compatible with acrylic emulsions

Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
AD-1	31.5~33.5	8.6~9.5	≥ 500	–	Pigment dispersant, waterborne	Dispersion of inorganic pigments

03

INK & COATING

Inks & Coatings

Fast-drying, high-gloss resins for printing and paper converting.

From flexographic and gravure inks to overprint varnishes, paper and film coatings, APEC's styrene-acrylic and pure acrylic emulsions deliver gloss, resolubility and rub resistance with fast drying.



Key Advantages



Fast Drying



High Gloss &
Resolubility



Pigment Wetting
& Adhesion



Rub, Water &
Grease
Resistance

Typical Applications



Flexo & Gravure Inks



Paper & Paperboard Coating



OPV & Film Coating



PVC Wallpaper

Product Lineup

1

Flexographic Ink Resins

- Pigment dispersion and let-down vehicles
- Hard and soft grades for paper and film
- Good hiding and color development

Key Features

- Fast drying, high gloss
- Resolubility on press
- Alcohol tolerance

Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
AF-7802	43~45	8.0~8.8	200~500	84	Flexo ink, hard type	Hiding power, color strength, alcohol tolerance
8900A	47~49	8~9	≤ 500	100	Flexo ink and OPV	Fast drying, high gloss, water and grease resistance
90MD-6	37.5~38.5	8.0~9.5	≤ 1,000	100	Pigment dispersion	Concentrated, good rheology and transfer
ASA-08301	48~50	6.5~8.0	200~2,000	–	Flexo ink let-down	Hiding, color development
AP-8920	48.5~50.5	8~9	600~900	100	Flexo ink let-down, hard type	Hardness, resolubility
AP-90M	34~36	8.0~8.6	2,500~4,500	–	Pigment dispersion	Pigment wetting, stability
AP-F31110	49.0~50.5	8~9	1,500~2,500	48	Film printing ink let-down	Adhesion to film, flexibility
AP-F5411	48.5~50.5	5.5~6.5	100~5,000	–	Film printing ink let-down	Adhesion to film, flexibility
AP-8920C	45~47	8~9	350~800	100	Flexo ink and OPV, hard type	Hardness, gloss

2 Gravure Ink & PVC Wallpaper Printing

- Gravure printing on paper and PVC wallpaper
- Tack-free, durable prints
- Good pigment compatibility

Key Features

- Fast drying
- Adhesion to PVC
- High gloss grades

Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
AP-3170	41~43	6.5~8.0	300~600	74	Gravure printing, paper coating	High gloss, tack-free, durable
AAC-07723	40.2~42.2	6.0~7.5	2,000~3,000	53	Gravure ink and coating	Fast drying, tack-free, durable
AAC-0937	41~43	6.5~8.0	≤ 8,000	13	Gravure printing, paper coating	Fast drying, tack-free, durable
AAC-9916	41~43	8~9	≤ 500	13	Gravure printing, paper coating	Tack-free, durable, good adhesion
AP-9420	42~44	6.5~8.0	300~1,000	59	Gravure printing, PVC wallpaper	Tack-free, durable, good adhesion
AP-20409	41~43	8~9	40~80	76	Gravure printing, paper coating	Tack-free, durable, good adhesion
AP-H20518	41~43	8~9	≤ 300	80	Gravure printing, paper coating	Tack-free, durable, good adhesion
AP-70913	42~44	7~9	≤ 300	60	Gravure printing, paper coating	High gloss, tack-free, durable
AP-1240	49~51	7.8~8.5	≤ 2,000	52	PVC wallpaper printing	Pigment compatibility, adhesion to PVC
AP-30830	42~44	6.5~8.0	1,000~2,000	59	PVC wallpaper printing	Pigment compatibility, adhesion to PVC
AP-7169	29~31	5~6	≥ 50	–	PVC wallpaper printing	Pigment compatibility, adhesion to PVC

3 Cationic Resins for PVC Wallpaper

- Cationic gravure ink binders
- High adhesion to PVC sheet
- Water resistance

Key Features

- Pigment compatibility
- Good printability
- Cationic coating grade

Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
AP-1331	32~34	4.5~6.5	≤ 1,000	68	PVC wallpaper gravure ink	Pigment compatibility, adhesion to PVC, water resistance
AP-0718-1	33~35	5~6	≤ 500	52	PVC wallpaper gravure ink	Pigment compatibility, adhesion to PVC, water resistance

Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
AP-7160-1	33~35	5~6	≤ 200	58	PVC wallpaper ink and coating	Cationic, adhesion to PVC

4 Overprint Varnish (OPV) & Coating Resins						
- Aqueous overprint varnishes and ink let-down - Gloss, holdout and rub resistance - Water and grease resistance				Key Features - Fast drying - Zinc-free grade - Hard resin grades		
Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
AP-70628	46.5~48.5	7~8	1,000~5,000	-28	Film coating, OPV	Fast drying, tack-free, resoluble
AP-707	40~41	8.0~8.8	1,500~3,500	-22	OPV and ink let-down	Zinc-free, fast drying, rub resistance
AP-2352H	45~47	8.5~9.5	500~1,500	29	OPV and ink let-down	Fast drying, high gloss, pigment wetting
AP-3407	46.5~48.5	7.5~8.5	400~1,200	-60	OPV and ink let-down	Gloss, rub, water and grease resistance
AP-311	45.5~47.5	7.5~8.5	400~800	-30	Aqueous OPV, coating	Holdout, high gloss, water and rub resistance
AP-1354	32.8~35.2	7.4~8.6	1,500~3,500	-	OPV	Gloss, fast drying
AP-2352	45~48	7~9	≤ 2,000	-	OPV	Gloss, water resistance
AP-3020	43~45	7.8~8.8	200~800	-	OPV	Gloss, water and heat resistance
AP-3110-1	41~43	7~8	≤ 500	73	OPV and coating, hard type	Hardness, gloss
AP-1000	32~34	8~9	≤ 200	-	Paper coating, general OPV	Gloss, water resistance

5 Paper & Paperboard Coating Resins						
- Coatings for paper, paperboard and wallpaper - Oil-resistant and abrasion-resistant grades - Inkjet and leather coating grades				Key Features - High gloss, pigment wetting - Resolubility and adhesion - Water repellency		
Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
APP-0702	40.5~42.0	7.8~8.5	≤ 200	-22	Oil-resistant paper coating	Low MFFT, heat resistance
AF-2300	47~49	7~9	400~1,500	8	Paper coating	High gloss, pigment wetting
AF-2302	46~49	7~9	1,500~2,500	-5	Paper coating	Fast drying, resolubility, adhesion
IJF-509	53.5~55.5	4.1~5.1	≤ 1,000	-20	Inkjet paper coating	Printability, water resistance

Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
AP-1110S	44.5~45.5	8.0~9.2	100~500	-54	Paper coating, abrasion-resistant	Abrasion resistance, adhesion
AP-81174	45~47	7~8	200~1,500	–	Paper coating	Water repellency
APC-0217C	43~45	6.5~8.5	600~900	–	Paper coating	Solvent and water resistance
AAC-07226	40~42	6.5~8.0	≤ 500	13	Wallpaper and paper coating	Hardness with flexibility
APG-27	49.5~51.5	7.0~8.5	400~800	-14	Paper, paperboard and leather coating	Adhesion, flexibility

6 Film & Special Coating Resins

- Thermosetting coating resin for BOPP film
- Heat-resistant styrene-acrylic binder
- Good adhesion to film

Key Features

- Crosslinkable
- Heat resistance
- Printability

Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
APPC-1651	43~45	10~11	≤ 2,000	–	BOPP film coating	Thermosetting, adhesion to film
SH-300	39~41	7~9	200~600	-8	Ink and coating binder	Heat resistance

7 Laminating Adhesives

- One-component adhesive for flexible packaging
- High bond strength
- Snack and instant-noodle packaging

Key Features

- Eco-friendly water-based
- NET certified technology
- Easy application

Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
AP-2025	39~41	6~8	≤ 50	-5	Flexible packaging lamination	One-component, high bond strength

04 TEXTILE

Textile, Non-woven & Adhesives

Soft hand, wash fastness and durable bonding.

APEC supplies binders for textile printing and finishing, non-woven and foam coatings, and water-based woodworking adhesives — eco-friendly, flexible and abrasion resistant.



Key Advantages



Eco-friendly
Water-based



Soft Hand &
Flexibility



Abrasion &
Wash
Resistance



Strong Adhesion

Typical Applications



Textile Printing



Non-woven & Foam



Woodworking



Finishing Agents

Product Lineup

1 Textile Printing & Finishing

- Binders for pigment printing
- Color-deepening and polyester coating agents
- Excellent wash fastness

Key Features

- Soft hand, flexibility
- Penetration and color definition
- Abrasion resistance

Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
APR-0304	59~61	6~8	100~400	-15	Textile printing	Soft hand, adhesion, wash resistance
APR-909D	47~49	7~8	≤ 300	-15	Textile printing	Penetration, wash fastness, color definition
AP-257	24.7~25.5	4~7	≤ 100	103	Textile finishing, color deepening	Cationic, fine particle, crosslinked
AD-780	39.5~40.5	6.0~7.5	≤ 1,000	-27	Polyester fabric coating	Adhesion to textile, abrasion resistance

2

Non-woven & Foam Coating

- Hard, medium and soft grades
- Eco-friendly, flexible and abrasion resistant
- Good workability

Key Features

- Adhesion to fibers
- Consistent film properties
- Easy formulation

Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
AP-T08	43~44	6~7	400~800	30	Non-woven and foam coating, hard	Flexible, abrasion-resistant, workable
AP-T13	43~44	6.0~7.5	300~800	15	Non-woven and foam coating, medium	Flexible, abrasion-resistant, workable
AP-T34	43~44	6.0~7.5	≤ 700	-30	Non-woven and foam coating, soft	Flexible, abrasion-resistant, workable

3

Woodworking Adhesives & Others

- Water-based woodworking adhesives
- Freeze-thaw stability and workability
- Laundry starch grade

Key Features

- Strong bond, non-toxic
- Pure acrylic binder grade
- Easy application

Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
AP-5054	51~53	5.5~7.5	28,000~33,000	28	Woodworking adhesives	Adhesion, workability, freeze-thaw stability
AP-6137	49~51	5~7	500~1,500	14	Woodworking adhesives	Pure acrylic, slightly acidic
APL-630	44~46	6~8	≥ 1,000	28	Laundry starch	Stiffness, easy application

05

SPECIALTY

Specialty & Functional Emulsions

Engineered emulsions for paper cups, roads and automotive.

Barrier coatings for paper cups and straws, fast-drying road marking binders, liquid applied sound deadeners (LASD) and opaque polymers — APEC develops functional emulsions together with customers.



Key Advantages



Food-contact
Paper Coatings



Fast-drying
Road Marking



Sound Damping



Low VOC, Water
Clean-up

Typical Applications



Paper Cups & Straws



Road Marking Paints



Automotive LASD



Battery Materials

Product Lineup

1 Paper Cup & Paper Straw Coatings

- Primer and top coats for paper food containers
- Heat-sealable and high blocking-resistance grades
- Water resistance and barrier

Key Features

- Adhesion to paper
- Good printability
- Standard, HS and HB grades

Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
Primer coat	46~47	7.0~8.5	≤ 300	–	Paper cup and straw primer	Adhesion to paper, barrier
Top-HB	43~44	8~9	≤ 100	–	Paper cup and straw top coat	High blocking resistance
Top-HS	40~42	7.5~8.5	400~800	–	Paper cup and straw top coat	Heat-sealable
Top-ST	46~47	7.0~8.5	≤ 500	–	Paper cup and straw top coat	Standard grade

2 Road Marking Binders

- Binders for road and bicycle-lane marking paints
- Fast drying, superior wear resistance
- Enhanced retention of glass beads

Key Features

- Ultra-low VOC, non-flammable
- Water clean-up
- Improved durability

Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
ARM-205	50~51	10.0~10.5	100~350	16	Road marking paints	Wear resistance, fast drying, glass-bead retention, low VOC
ARM-1126	50~51	9.5~11.0	100~500	6	Road marking paints	Wear resistance, fast drying, glass-bead retention, low VOC

3 Liquid Applied Sound Deadener (LASD)

- Binders for sprayable sound damping compounds
- High filler loading and compatibility
- Adhesion to e-coated steel

Key Features

- Damping performance
- Film formation and water resistance
- Washability

Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
AP-0407-1	49.8~50.5	8.0~8.2	300~450	8	Sound damping (LASD)	Adhesion to various substrates, filler compatibility
AAV-0116	48.8~49.5	8~9	≤ 500	-20	Sound damping (LASD)	Film formation, washability, water resistance
AP-6718	50~52	7~9	≤ 2,000	–	Sound damping (LASD)	Damping performance, filler compatibility

4 Opaque Polymer

- Hollow-sphere polymer for paints
- Partial replacement of TiO₂
- Improved hiding and cost efficiency

Key Features

- Low density
- Good compatibility with latex paints
- Easy incorporation

Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
OPKOR-30M	29.5~30.5	7.8~8.4	≤ 500	–	Opaque polymer for paints	Partial replacement of TiO ₂ , hiding

5 Secondary Battery Binder

- Binder for separator coating of lithium-ion batteries
- Water-soluble polyacrylate (not an emulsion)
- Developed with battery material customers

Key Features

- Stable aqueous solution
- Good dispersion of inorganic particles
- Low viscosity

Product Code	Solid (%)	pH	Viscosity (cps)	Tg (°C)	Applications	Key Properties
AAC-1204	19.5~21.5	5~6	≤ 500	87	Secondary battery separator coating	Water-soluble polyacrylate binder

06

PUD · AUD

Polyurethane Dispersions

Solvent-free waterborne polyurethane for coatings, textiles and adhesives.

APEC's PUD and acrylic-urethane hybrid (AUD) dispersions combine the toughness and elasticity of polyurethane with the convenience of water-based processing — soft-touch fabric coatings, chemical-resistant hard coatings and glass fiber sizing.



Key Advantages



Solvent-free Grades



Soft Touch & High Elongation



Solvent & Water Resistance



Silane Compatibility

Typical Applications



Fabric & Leather Coating



Metal & Hard Coatings



Glass Fiber Sizing



Ink Binders

Product Lineup

1 Fabric Coating & Adhesives (Soft, High Elongation)

- Soft-touch PUDs for fabric coating and adhesives
- High elongation, clear and elastic films
- Water and stain resistant grades

Key Features

- Soft hand
- Solvent and water resistance grades
- Non-ionic processing grade

Product Code	Isocyanate	Polyol*	Cosolvent	Solid (%)	Viscosity (cps)	pH	Particle (nm)	Hardness	Elong. (%)	Applications	Key Properties
AU-107H	Aliph	PE	NEP 7.0%	31±1	< 1,000	7.0±1	<150	Soft medium	400 - 500	Fabric coating, adhesives	Soft touch, elasticity
AU-203	Aliph	PES	NEP 7.0%	35±1	< 1,000	8.0±1	<100	Medium	1000	Fabric coating, adhesives	High elongation, elasticity, clear film
AU-204	Aliph	PES	NEP 7.0%	40±1	< 1,000	8.0±1	<100	Medium	1000	Fabric coating, adhesives	High elongation, elasticity, clear film
AU-309	Aliph	PES	NEP 5.0%	40±1	< 1,000	8.0±1	<200	Very soft	1000	Fabric coating, adhesives	High elongation, clear film, water and stain resistance
AU-409	Aliph	PES	NEP 7.0%	35±1	< 1,000	8.0±1	<100	Very soft	1000	Fabric coating, adhesives	High elongation, clear film, water and stain resistance
AU-423	Aliph	PES	0	35±1	< 1,000	8.0±2	50~150	Soft	600	Fabric coating, adhesives	High elongation, clear film, water resistance

Product Code	Isocyanate	Polyol*	Cosolvent	Solid (%)	Viscosity (cps)	pH	Particle (nm)	Hardness	Elong. (%)	Applications	Key Properties
AU-3150	Aliph	PES	0	50±1	< 5,000	8.0±2	<300	Soft	1000	Fabric coating, adhesives	Soft touch, elasticity
AU-3250	Aliph	PE	0	50±1	< 5,000	8.0±2	<300	Soft	1000	Fabric coating, adhesives	Soft touch, elasticity
AU-3443	Aliph	PE	0	32±1	< 1,000	8.0±2	<300	Soft	500	Fabric coating, adhesives	Soft touch, solvent and water resistance
AU-3448	Aliph	PE	0	35±1	< 1,000	8.0±2	<300	Medium	200	Fabric coating, adhesives	Soft touch, solvent and water resistance
AU-333	Aliph	PE+PES	NEP 5.0%	30±1	< 1,000	6.0±1	<100	Very soft	1000	Fabric coating, adhesives, ink binder	Soft touch, non-ionic, processability

2

Leather Coating & Ink Binders

- Soft-touch leather finishing
- Solvent-free, non-ionic ink binders
- Ethanol-compatible resoluble grade

Key Features

- High tack, processability
- Good re-solubility
- Non-ionic type

Product Code	Isocyanate	Polyol*	Cosolvent	Solid (%)	Viscosity (cps)	pH	Particle (nm)	Hardness	Elong. (%)	Applications	Key Properties
AU-108(25)	Aliph	PE	NEP 6.0%	25±1	< 1,000	7.5±1	<100	Very soft	700	Leather coating	Soft touch, high tack, processability
AU-423C	Aliph	PES	0	30±1	< 1,000	6.0±1	<100	Soft	800	Ink binder	Soft touch, resoluble, ethanol compatible, non-ionic

3

Metal & Hard Coatings (PUD / AUD)

- Coatings for metal, aluminum and golf balls
- Acrylic-urethane hybrid (AUD) hard coatings
- Paint binder grade

Key Features

- Solvent and corrosion resistance
- Tough, clear film
- Pencil hardness up to 2H

Product Code	Isocyanate	Polyol*	Cosolvent	Solid (%)	Viscosity (cps)	pH	Particle (nm)	Hardness	Elong. (%)	Applications	Key Properties
AU-120	Aliph	PC	NEP 15.0%	32±1	< 1,000	8.0±1	<100	2H	0	Metal coating	Solvent and corrosion resistance
AU-406	Aro+Aliph	PE+FA	NEP 10.0%	32±1	< 1,000	7.0±1	<100	B	200	Metal, aluminum and golf ball coating	Solvent and water resistance
AU-700	Aliph	PC	NEP 6.0%	31±1	< 500	8.0±1	<100	2H	0	Hard coatings	Solvent and water resistance, clear film
AU-810	Aliph	PC+PES	NEP 10.0%	40±1	< 500	7.0±1	<200	2H	0	Hard coatings, paint binder	Solvent and water resistance, tough surface
AU-123	Aliph	PC+PES	0	30±1	< 1,000	8.0±1	<100	Medium	200	Fabric coating, ink binder	Solvent-free, non-ionic, processability

4

Glass Fiber Sizing & PET Coating

- Sizing agents for glass fiber
- Adhesives for fabrics and PET coating
- Solvent-free, amine-free grades

Key Features

- Silane compatibility
- Good film formation
- Stable dispersion

Product Code	Isocyanate	Polyol*	Cosolvent	Solid (%)	Viscosity (cps)	pH	Particle (nm)	Hardness	Elong. (%)	Applications	Key Properties
AU-421	Aliph	PES	0	40±1	< 500	8.0±2	50~120	Medium	600	Glass fiber sizing, fabric adhesives, PET coating	Solvent-free, amine-free, silane compatible
AU-422	Aliph	PES	0	40±1	< 500	8.0±2	50~120	Medium	400	Glass fiber sizing, fabric adhesives, PET coating	Solvent-free, silane compatible
AU-424	Aliph	PC	0	39±1	< 1,000	6.0±1	50~150	Medium	450	Glass fiber sizing, fabric adhesives, PET coating	Solvent-free, silane compatible

5

Matte Coating

- Matte coating for paper and PVC
- Low gloss, velvet feel
- Easy formulation

Key Features

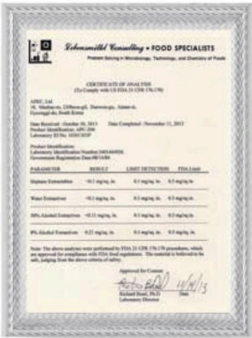
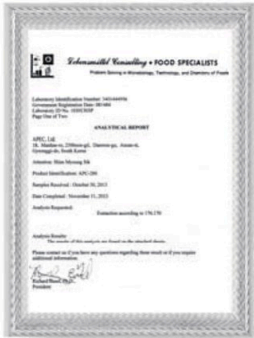
- Soft-touch surface
- Good adhesion
- Uniform matte finish

Product Code	Isocyanate	Polyol*	Cosolvent	Solid (%)	Viscosity (cps)	pH	Particle (nm)	Hardness	Elong. (%)	Applications	Key Properties
AU-3100P	Aliph	PE	DPDM 5%	39±2	< 3,000	7.0±2	1300~2200	Soft	500	Matte coating (paper, PVC)	Low gloss, velvet feel

* FA: fatty acid, PC: polycarbonate, PE: polyether, PES: polyester. Aliph: aliphatic isocyanate, Aro: aromatic. Cosolvent 0 = solvent-free.

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