



## Eco Friendly Synthetic Resins

We are creating new value  
for our customers  
by developing advanced technologies

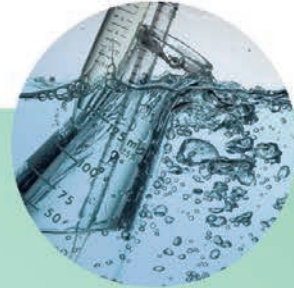


**NOROO**  
R&C

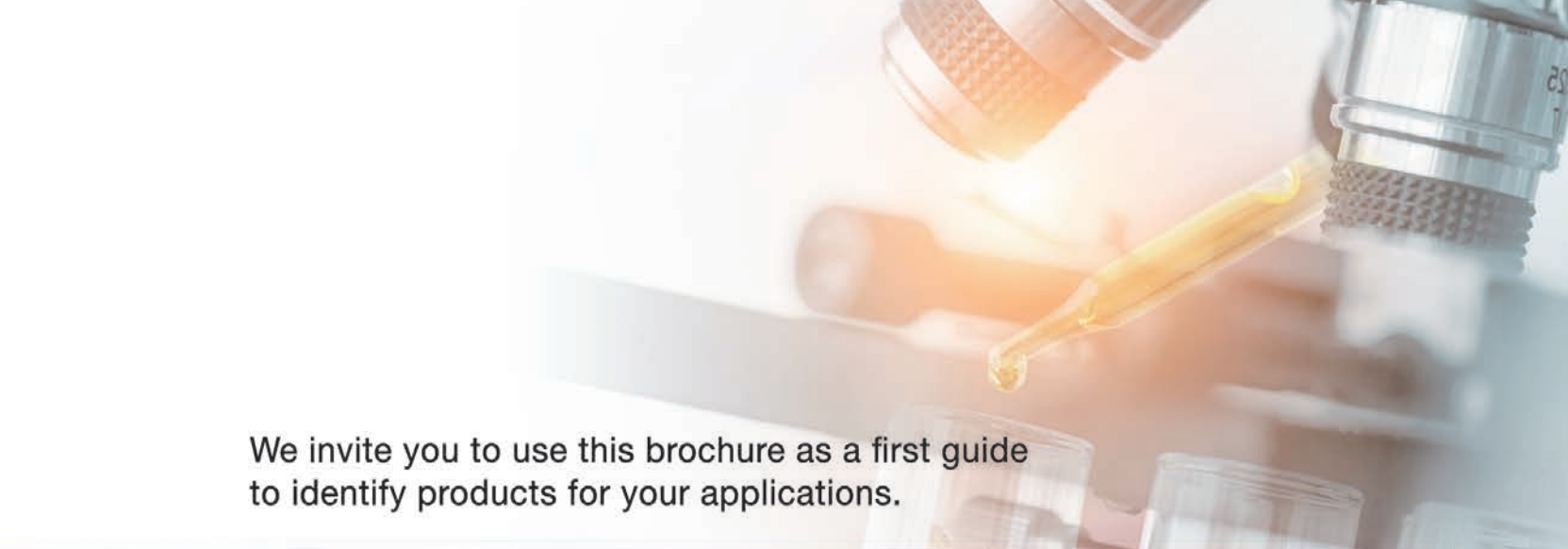


# Hyres<sup>®</sup>

## Eco Friendly Synthetic Resins



Noroo R&C is a specialist chemicals company. Noroo R&C is in the development and manufacture of innovative resins used in surface coatings. We develop and manufacture innovative water and solventborne resins, as well as solid powder resins. Our products are used in architectural, industrial, automotive and protective coatings. We also supply resins that are used in flooring, adhesives, ink and textiles.



We invite you to use this brochure as a first guide to identify products for your applications.

Although our list of core products covers a broad range of applications, we recognize that value of individual solutions and enjoy the challenge to meet your specific needs. So if you are looking for advice or customized solutions, please contact sales manager, our technical staff to discuss your requirements in more details.

**NOROO R&C Co., Ltd.**



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# Acryl Emulsion



Products	Solid (%)	Viscosity (cps)	pH	Tg (°C)	Properties	Application
WA-0058	48	150 ~ 450	7.5 ~ 8.5	16	건축 범용, 콘크리트 부착성, 안료 혼화성 Architecture, concrete adhesion, miscibility with pigments	실내외 바인더 Binder for indoor/outdoor of architecture
WA-3700	50	500 ~ 1,500	8.0 ~ 9.5	30	우수한 광택 및 안정성 high gloss, good stability	건축 내장 도료 interior for architecture
WA-0070	51	700 ~ 1,700	8.5 ~ 10.5	34	고광택, 내후성, 우수한 안정성 High gloss, good weatherability, excellent stability	수성 상도, 투명 도료 Waterborne topcoat and Clear coat
WA-0090	50	350 ~ 1,300	6.0 ~ 8.0	-13	시멘트 혼화성, 안료 혼화성, 부착성 miscibility with cement/pigments, adhesion	시멘트계 방수제, 수지탄성 putty Cement waterproofing, elasticity putty
WA-3040	51	10 ~ 400	8.2 ~ 9.2	30	고광택, 부착성 우수 High gloss, excellent adhesion	건축 외장 고광택용 Architecture exterior for high gloss
WA-3441	47	100 ~ 500	7.0 ~ 9.0	-5	혼화성, 작업성, 내알카리성, 내수성 Miscibility, workability, alkali resistance, water resistance	시멘트 몰탈용 Cement mortar
WA-0423	55	60 이하	6.5 ~ 8.5	-16	부착성, 유연성 우수 Good adhesion, excellent flexibility	목공 하도용 바인더 Under coat for wood
WA-0099	45	1,000 ~ 3,000	8.0 ~ 9.5	-10	내수성, 접착력 우수 Water resistance, excellent adhesion	각종 마감재, 스톤 코팅용 General purpose finish, Stone coat
WA-1486	40	500 이하	4.5 ~ 6.5		안료 분산성, 부착성 Pigments dispersibility, good adhesion	EPS 난연 바인더 Binder for fire retardant EPS materials
WA-0062	35	20 이하	6.0 ~ 8.0	45	내알카리성 우수 Excellent alkali resistance	도금강판용 코팅제 Steel sheet coatings
WA-0063	45	10 ~ 30	7.0 ~ 9.0	40	일시 방청용, 안료분산성 우수 Good corrosion resistance, excellent pigments dispersibility	도금강판용 코팅제 Steel sheet coatings
WA-2045	20	100 이하	7.0 ~ 8.0	-38	부착성 Good adhesion	피혁용 primer Leather primer
WA-1110	47	400 ~ 800	8.0 ~ 9.0	-40	접착성, 내수성 우수 good adhesion, excellent water resistance	내마모 수지용, 종이코팅용 Abrasion resistance resin, Paper coatings
WA-2300	46	400 ~ 800	8.0 ~ 9.0	10	고광택, 안료 및 수지 상용 우수 High gloss, excellent pigments/Resin compatibility	종이코팅용 Paper coatings
WA-1240	49	1,500 ~ 3,000	7.0 ~ 9.0	50	인쇄적성, 재용해성 우수, 고광택 Printability, excellent re-solubility, high gloss	그라비아 인쇄, PVC 벽지 인쇄용 Gravure ink printing, PVC wallpaper printing

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# Acryl Emulsion



Products	Solid (%)	Viscosity (cps)	pH	Tg (°C)	Properties	Application
WA-0180	50	1,000 ~ 10,000	8.0 ~ 8.5	-50	응집력 우수 Excellent cohesiveness	의료용 테이프, 패치용 접착제 Medical tape, Adhesive for patch
WA-0115	59	1,000 ~ 10,000	7.0 ~ 9.0	-50	가소제 내전이성 우수, 고온 응집력 우수 Good shift resistance for plasticizers, good cohesiveness at a high temperature	PVC 인테리어 필름/시트용 접착제 Adhesive for PVC interior film/Sheet
WA-0114	45	200 이하	7.5 ~ 8.5	-50	약접-중접성, 제거성 및 내수 우수 weak to medium adhesion, good removable, good water resistance	2K 접착제, 스틸 보호용 PE 필름 2K adhesive, PE film for Protective Steel
WA-0019	60	1,000 ~ 10,000	8.0 ~ 8.5	-62	부착력 우수, Peel & tack 균형성 우수 Good adhesion, excellent peel & tack balance	난연성 폼 테이프, 양면 테이프용 Foam tape for fire retardant, Double-sided tape
WA-0820	55	4,000 ~ 10,000	8.0 ~ 8.5	-68	응집력 우수, tack & 전단력 균형성 우수 Excellent cohesiveness, excellent shearing force & tack balance	Removable tape
WA-5054	51	30,000	6.0 ~ 7.0	30	초산비닐에멀전, 접착력, 작업성 우수 polyvinylacetate emulsion, excellent workability	목공용 접착제 Adhesive for wood



# Waterborne Acryl Polyol



Products	Solid (%)	Viscosity (cps)	pH	Tg (°C)	OH (Solid) (%)	Properties	Application
WA-2200	42	500 이하	7.0 ~ 9.0	26	4.3	무용제, APEO free, Solvent free, APEO free	플라스틱, 금속 Plastic and metal coatings
WA-3000	40	500 이하	8.0 ~ 9.0	30	3.5	무용제, APEO free, 고광택 Solvent free, APEO free, high gloss	플라스틱, 금속 Plastic and metal coatings
WA-0300	43	1,000 이하	7.0 ~ 9.0	22	3.5	SM free, 무용제, 부착성, 내후성 SM free, solvent free, adhesion, good weatherability	플라스틱, 금속 Plastic and metal coatings
WA-0500	43	500 이하	7.0 ~ 9.0	22	3.5	무용제, 부착성 Solvent free, good adhesion	플라스틱, 금속 Plastic and metal coatings
WA-0518	45	1,000 이하	8.0 ~ 10.0	21	3	무용제, 부착성 Solvent free, good adhesion	플라스틱, 금속 Plastic and metal coatings
WA-0330	45	800 ~ 2,300	7.0 ~ 8.0	30	3.8	수분산 아크릴, 유화제 free, 내수성, 고광택 Acryl polyol dispersion, surfactant free, excellent water resistance, high gloss	플라스틱, 금속, 자동차 보수용 Plastic, metal and automotive refinish coatings



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# Polyurethane Dispersion



Products	Type	Solid (%)	Viscosity (cps)	pH	Co-Solvent	Properties	Application
WUI-0365	PUD	30	500 이하	7 ~ 9	DMM	소프트 필, 접착성 Soft feel, good adhesion	섬유, 피혁 상도 textile and leather top coatings
WUI-1100	PUD	40	300 이하	6 ~ 8.5	X	Amine free, 유연성, 소프트필, 접착성 Amine free, good flexibility, soft feel, good adhesion	섬유, 피혁용(연질), 라미 textile and leather coatings(soft), lamination
WUI-1300	PUD	50	1,000 이하	6 ~ 8.5	X	Amine free, 유연성, 소프트필 Amine free, good flexibility, soft feel	섬유, 피혁용(중질) textile and leather coatings(medium)
WUI-1932	PUD	32	100 이하	7 ~ 9	X	칩핑성, 무황변, 접착성 Chipping resistance, non-yellowing, good adhesion	자동차 Let-down용, 플라스틱, 금속 Plastic and metal coatings, paint for automotive let-down
WUE-1010	PUD	32	150 이하	7.5 ~ 8.5	NMP	고광택, 내마모성 High gloss, good abrasion resistance	섬유, 피혁, 플라스틱 textile, leather and plastic coatings
WU-4000	PUD	33	500 이하	7 ~ 10	NMP	고광택, 내화학성, 기계적 특성 Excellent gloss, chemical resistance, good mechanical properties	자보 중도, 플라스틱 Basecoat for automotive refinish and plastic coatings
WU-4200	PUD	33	500 이하	7 ~ 10	NEP	고광택, 내화학성, 기계적 특성 Excellent gloss, chemical resistance, good mechanical properties	자보 중도, 플라스틱 Basecoat for automotive refinish and plastic coatings
WUI-1922	AUD	40	400 이하	7 ~ 9	NEP	다양한 기재의 접착성, 속건, 내후성 Outstanding adhesion to a wide variety of substrates, fast dry times, good weatherability	플라스틱, 금속, 목공 Plastic, metal and wood coatings
WUI-1935	AUD	30	300 이하	7 ~ 9	DMM	다양한 기재의 접착성, 내식성, 내수성 Outstanding adhesion to a wide variety of substrates, corrosion resistance, good water resistance	(비)철금속 표면처리, 플라스틱 (Non)ferrous surface treatment and plastic coatings
WUI-3100	PUD	40	3,000 이하	7.0 ~ 9.0	DMM	소프트필, 무광 Soft feel: matt	무광 필름, 종이 코팅용 matt film and paper coatings

## Water-borne Resin



Products	Type	Solid (%)	Viscosity (cps)	pH	Solvent	Properties	Application
WP-7230	PED	30	<300	4 ~ 7	X	PE Emulsion, 접착성 Polyester emulsion, good adhesion	종이, 플라스틱, 잉크 Paper, plastics coatings and inks
WK-2255	Alkyd	50	<1000	6.5 ~ 8.5	X	공기 건조성, 속건, 무용제 Air drying, fast drying, solvent free	목재 프라이머, 하도, 착색도료 Primer and undercoat, wood stains
WK-2266	Alkyd	46	<1000	7.5 ~ 9.5	X	공기 건조성, 무용제 Air drying, solvent free	목재 프라이머, 하도, 착색도료 Primer and undercoat, wood stains
WK-2288	Alkyd Urethane	40	<500	5.0 ~ 7.5	X	속건, 부착력, 무황변 Fast drying, adhesion, non-yellowing	금속, 주거용 다이 페인트 Metal, house & DIY paints

## Water-soluble Resin

Products	Type	Solid (%)	Viscosity (Gardner)	Solvent	Properties	Application
HA-0960	Alkyd. Ac	60	Z3 ~ Z5	B-Cell	내식성, 속건 Corrosion resistance, fast drying	스틸, 강관용 Steel, steel pipe coatings
AC-1716	Ac	45	Z4 ~ Z8	IPA, B-Cell, E-Cell	속건, 내화학성 Fast drying, chemical resistance	스틸, 강관용 Steel, steel pipe coatings
AC-9040	Ac	40	H- ~ J+	Water, B-Cell, i-BuOH	OH%(solid):2.5, 고풍택, 내용제성 우수 High gloss, excellent solvent resistance	공업용 수성 도료 Industrial waterborne coatings

## Water-soluble Polyisocyanate Crosslinker

Products	Solid (%)	Viscosity (cps)	NCO (%)	Curing Temp.	Solvent	Characteristics
CI-2000	99 이상	4,000 이하	17			고광택, 수용화 우수 High gloss, good compatibility with water
CI-2010	99 이상	4,000 이하	17			접착성 우수, 내화학성 우수 Excellent adhesive property, chemical resistance
CI-4100	40	1,000 이하	15.1	120°C	Water	Blocked isocyanate, VOC free
CI-0423	70	2,500 이하	20	120°C	PM	Blocked isocyanate, 저온 해리 Dissociation at low temp.
CI-0432	75	2,500 이하	21	150°C	PMA	Blocked isocyanate

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# High solid Acryl



Products	Solid (%)	Viscosity (Gardner)	Tg (°C)	OH(Solid) (%)	Solvent	Properties	Application
AC-0680	80	Z3~Z4+	11	2.2	Xyl, BAc, BuOH	내후성, 고외관, 고광택 Excellent appearance and weatherability, high gloss	중방식/선박 2K 상도용 2K top Coating for heavy duty/ship
AC-3375	75	Z4~Z7	30	3.1	Xyl	속건, 레벨링 우수 Fast drying, good leveling	플라스틱(자동차/화장품/모바일)용 투명 Clear coatings for Plastic(Automotive/Cosmetics/Mobile)
AC-7111	73	Z1+~Z3+	10	3.6	K-100, Xyl	상용성 및 색상유지율 우수 Good compatibility, good color retention	Colorant용 분산수지 Dispersion resin for colorant
AC-0099	70	Z2+~Z4+	66	4.5	Xyl, BAc, PMA	내스크래치성 Good scratch resistance	플라스틱(자동차/화장품/모바일)용 투명 Clear coatings for Plastic(Automotive/Cosmetics/Mobile)
AC-0515	70	Z1~Z3	50	4.5	BAc	레벨링, 살오름성, 광택 우수 Good leveling, good build-up, high gloss	자동차 보수용 클리어 Automotive refinish clear coatings
AC-2060	70	Z~Z2	50	4	BAc	유색 안료 분산성, 광택 Good pigment dispersibility, high gloss	자동차 보수용 유색 상도 Automotive refinish colored top coatings
AC-0070	65	Y~Z1	-20	2.6	MIBK, Xyl	유연성 Good flexibility	자동차 부품용, 에어백 도장용 Automobile parts and air-bag coatings
AC-0080	65	V+~Y-	-19	2.6	MIBK	유연성 Good flexibility	PP용 상도, 자동차용 PP top coatings, automotive coatings
AC-0344	65	Y~Z2+	70	3.6	Xyl, BAc, CAc	고경도, 레벨링, 광택 우수 Good hardness, good leveling, high gloss	플라스틱(자동차/화장품/모바일)용 투명 Clear coatings for Plastic(Automotive/Cosmetics/Mobile)
AC-0470	65	Z~Z2	65	3.5	Xyl	자보용 광택 작업성 내습성 우수	플라스틱(자동차/화장품/모바일)용 투명 Clear coatings for Plastic(Automotive/Cosmetics/Mobile)
AC-2915	65	W~Z1	60	2.8	Xyl	광택 경도 Good hardness, high gloss	플라스틱(자동차/화장품/모바일)용 투명 Clear coatings for Plastic(Automotive/Cosmetics/Mobile)
AC-3575	65	Z3~Z5	36	3.8	Xyl	지건 타입 Slow drying	플라스틱(자동차/화장품/모바일)용 투명 Clear coatings for Plastic(Automotive/Cosmetics/Mobile)
AC-0525	64	Z3+~Z5+	74	4.5	Xyl	내광성, 고경도 Good UV resistance, good hardness	모바일 상도용 Mobile top coatings
AC-3558	64	U~W	-4	2.9	Xyl, BAc	내용제성 광택 부착성 Good solvent resistance, good adhesion, high gloss	플라스틱용, 범퍼용 상도 크리어 Plastic coatings, clear coatings for bumper
AC-5190	64	X+~Z+	59	2.1	PMA, DMC	중속건 타입 middle drying	플라스틱(자동차/화장품/모바일)용 투명 Clear coatings for Plastic(Automotive/Cosmetics/Mobile)
AC-5195	64	V+~Y	60	1.7	BAc	부착성 우수 Good adhesion	플라스틱(자동차/화장품/모바일)용 투명 Clear coatings for Plastic(Automotive/Cosmetics/Mobile)

# Powder Coating

Products	Viscosity (cps at 200°C)	Acid Value (mmKOH/g)	Tg (°C)	Color (Gardner)	Properties	Application
PEP 1681	2,000~3,000	42~46	55	Max 2	속경화, 고풍택, 유동성 우수 Fast curing, excellent flow, high gloss	가전용(냉장고, 에어컨 등) Electric home appliances (refrigerator, air conditioner etc)
PEP 1781	4,500~7,500	27~33	60	Max 1	유동성, 외관 우수 Good flow, high wetting Property	가전용(냉장고, 에어컨 등) Electric home appliances (refrigerator, air conditioner etc)
PEP 4010	5,500~7,500	39~41	65	Max 1	고광택, 기계적 물성 우수 High-Gloss, mechanical Property	가전용(냉장고, 에어컨 등) Electric home appliances (refrigerator, air conditioner etc)
PEP 2480	3,500~5,500	24~25.5	62	Max 3	내후성, 유연성, 유동성 우수 Weathering resistance, good flexibility, good flow	건축, 외장재 Architecture, outdoor structures
PEP 2560	2,800~4,200	30~36	58	Max 1	내후성, 유연성, 유동성 우수 Weathering resistance, good flexibility, good flow	건축, 외장재, 자동차 Architecture, outdoor structures, automotive Parts
PEP 3600	2,500~3,500	32~38	67	Max 2	내구성, 유동성 우수 Super durable, excellent flow	건축, 외장재, 자동차 부품 Architecture, outdoor structures, automotive Parts



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## ▶ 용도별

용도	Products	Application	분류
건축용	WA-0058	실내외 바인더	Acryl Emulsion
	WA-3700	건축 내장 도료	Acryl Emulsion
	WA-0070	수성 상도, 투명 도료	Acryl Emulsion
	WA-0090	시멘트계 방수재, 수지탄성 putty	Acryl Emulsion
	WA-3040	건축 외장 고광택용	Acryl Emulsion
	WA-3441	시멘트 몰탈용	Acryl Emulsion
	WA-0423	목공 하도용 바인더	Acryl Emulsion
	WA-0099	각종 마감재, 스톤 코팅용	Acryl Emulsion
	WA-1486	EPS 난연 바인더	Acryl Emulsion
스탈용	WA-0062	도금강판용 코팅제	Acryl Emulsion
	WA-0063	도금강판용 코팅제	Acryl Emulsion
	WUI-1935	(비)철금속 표면처리, 플라스틱	PUD
	WK-2288	Metal, house & DIY paints	기타
	HA-0960	스틸, 강관용	Watersoluble
	AC-1716	스틸, 강관용	Watersoluble
점접착제	WA-0114	2K 점착제, 스틸 보호용 PE 필름	Acryl Emulsion
	WA-0019	난연성 폼 테이프, 양면 테이프용	Acryl Emulsion
	WA-0820	Removable tape	Acryl Emulsion
	WA-5054	목공용 점착제	Acryl Emulsion
공업용	WA-2045	피혁용 primer	Acryl Emulsion
	WA-1110	내마모 수지용, 종이코팅용	Acryl Emulsion
	WA-2300	종이코팅용	Acryl Emulsion
	WA-1240	그라비아 인쇄, PVC 벽지 인쇄용	Acryl Emulsion
	WA-0180	의료용 테이프, 패치용 점착제	Acryl Emulsion
	WA-0115	PVC 인테리어 필름/시트용 점착제	Acryl Emulsion
	WA-2200	플라스틱, 금속	Acryl polyol
	WA-3000	플라스틱, 금속	Acryl polyol
	WA-0300	플라스틱, 금속	Acryl polyol
	WA-0500	플라스틱, 금속	Acryl polyol
	WA-0518	플라스틱, 금속	Acryl polyol
	WA-0330	플라스틱, 금속, 차보용	Acryl polyol
	WUI-0365	섬유, 피혁 상도	PUD
	WUI-1100	섬유, 피혁용(연질), 라미	PUD
	WUI-1300	섬유, 피혁용(중질)	PUD
	WUE-1010	섬유, 피혁, 플라스틱	PUD
	WUI-1932	자동차 Let-down용, 플라스틱, 금속	PUD
	WU-4000	자보 중도, 플라스틱	PUD
	WU-4200	자보 중도, 플라스틱	PUD
	WUI-1922	플라스틱, 금속, 목공	PUD
	WUI-1935	(비)철금속 표면처리, 플라스틱	PUD
	WUI-3100	무광 필름, 종이 코팅용	PUD

용도	Products	Application	분류
공업용	WP-7230	종이, 플라스틱, 잉크	기타
	WK-2255	Primer and undercoat, Wood stains	기타
	WK-2266	Primer and undercoat, Wood stains	기타
	AC-9040	공업용 수성 도료	Watersoluble
	AC-3375	자동차 보수용 클리어	High-solid acryl
	AC-0070	자동차 부품용, 에어백 도장용	High-solid acryl
	AC-0080	PP용 상도, 자동차용	High-solid acryl
	AC-0099	자동차 보수용 클리어	High-solid acryl
	AC-0344	자동차 보수용	High-solid acryl
	AC-0470	자동차 보수용 클리어	High-solid acryl
	AC-0515	자동차 보수용 클리어	High-solid acryl
	AC-2060	자동차 보수용 유색 상도	High-solid acryl
	AC-2915	자동차 보수용	High-solid acryl
	AC-3558	플라스틱용, 범퍼용 상도 크리어	High-solid acryl
	AC-3575	자동차 보수용	High-solid acryl
	AC-5190	자동차 보수용 클리어	High-solid acryl
	AC-5195	자동차 보수용 클리어	High-solid acryl
	AC-7111	Colorant용 분산수지	High-solid acryl
	AC-0525	모바일 상도용	High-solid acryl
	AC-0680	선박용 2K 상도용	High-solid acryl
PEP 1681	가전용(냉장고, 에어컨 등)	Powder coating	
PEP 1781	가전용(냉장고, 에어컨 등)	Powder coating	
PEP 4010	가전용(냉장고, 에어컨 등)	Powder coating	
PEP 2480	건축, 외장재	Powder coating	
PEP 2560	건축, 외장재, 자동차	Powder coating	
PEP 3600	건축, 외장재, 자동차 부품	Powder coating	
AC-3575	자동차 보수용	High-solid acryl	
AC-5190	자동차 보수용 클리어	High-solid acryl	
AC-5195	자동차 보수용 클리어	High-solid acryl	
AC-7111	Colorant용 분산수지	High-solid acryl	
AC-0525	모바일 상도용	High-solid acryl	
AC-0680	선박용 2K 상도용	High-solid acryl	
PEP 1681	가전용(냉장고, 에어컨 등)	Powder coating	
PEP 1781	가전용(냉장고, 에어컨 등)	Powder coating	
PEP 4010	가전용(냉장고, 에어컨 등)	Powder coating	
PEP 2480	건축, 외장재	Powder coating	
PEP 2560	건축, 외장재, 자동차	Powder coating	
PEP 3600	건축, 외장재, 자동차 부품	Powder coating	



NOROO R&C Co.,Ltd.

**Main office**

351, Bakdal-ro, Manan-gu, Anyang-si, Gyeonggi-do 13977, Korea  
경기도 안양시 만안구 박달로 351  
Tel 82\_31\_599\_7200 Fax 82\_31\_599\_7330  
<http://www.noroornc.com>