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Hyres® Synthetic Resins

NOROO R&C Co., Ltd.

Hyres®
Synthetic Resins

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

NOROO
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Hyres®
Synthetic Resins

Noroo R&C is a specialist chemicals company.
Noroo R&C 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.

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ACRYLIC RESINS

Hyres® Synthetic Resins

1) THERMOSETTING ACRYLIC RESINS

* Theoretical values / 이론값

Products	Solvent	Viscosity Gardner (25℃)	Color Gardner	Density g/㎤	Non-Volatiles (%)	Acid Value mg KOH/g	*OH Content(%)	*Tg(℃)	Key features	Application
Hyres AC 0421	Tol/MIBK	Y ~ Z1	max 1	0.99	50.0	6.5 ~ 8.5	1.4	29	Excellent workability , good pigment dispersion and good durability 작업성 , 안료 분산성, 내후성	Metallic 2C1B basecoat for automotive 자동차용 하도 Metallic 2C1B
Hyres AC 0070	Xyl/MIBK	Y ~ Z1+	max 2	1.02	65.0	max 2	2.7	-20	High flexibility 유연성	Coatings for automotive refinish 자동차 코팅용
Hyres AC 0101	Tol/Bu-Ac	T ~ W	max 1	0.99	50.0	max 1	0.7	76	Excellent adhesion 부착성	General top coatings of plastic 플라스틱 상도용
Hyres AC 0149	Xyl/Bu-Ac	Z ~ Z2	max 1	1.00	55.5	max 1	1.3	73.9	Fast drying and high gloss 속건성, 고광택	Topcoat for automotive refinish coatings 자동차보수용 상도용
Hyres AC 0200	Xyl/DMC	S ~ U	max 1	1.00	49.0	2~5	5.0	-8	High elasticity 고탄성	Topcoat for architectural paints 건축용 상도용
Hyres AC 0208	Tol/PMA	I ~ L	max 1	0.98	49.0	3 ~ 7	3.0	- 17	Excellent impact resistance and good appearance 고외관, 내충격성	General purpose,2K acrylic urethane basecoat for plastic coatings 일반용/ 플라스틱용 아크릭우레탄 하도
Hyres AC 0216	Bu-Ac	U ~ W	max 1	1.00	59.5	4 ~ 8	2.9	27	Good appearance, good exterior durability with good hardness 고외관, 내구성, 고경도	2K acrylic urethane 2K 아크릭 우레탄
Hyres AC 0248	Tol/Bu-Ac	X- ~ Z+	max 1	0.98	49.0	3 ~ 6	4.1	25	Excellent gloss and good workability 고광택, 내구성	2K topcoat for industrial heavy equipment 산업용 중장비용 2K 상도용
Hyres AC 0266	Xyl/Bu-Ac/Tol	T ~ W	max 1	1.00	58.5	3 ~ 6	2.4	39	Excellent weatherability and good appearance 고외관, 내후성	2K topclear for automotive plastic coatings 자동차플라스틱용 2K상도투명
Hyres AC 0344	Xyl/Cell-Ac/Bu-Ac	Y- ~ Z2+	max 1	1.02	69.0	6~10	3.1	76	High solid resin with low molecular weight, excellent gloss high solid and good weatherability 저분자량의 High-solid, 고광택, 내후성	High solid 2K acrylic urethane for automotive refinishes 자동차보수용 하이솔리드 2K 아크릭우레탄
Hyres AC 0345	Xyl/Tol	V ~ Y-	max 1	0.96	49.5	5 ~ 9	1.8	8	High molecular weight, good flexibility and good adhesion 고분자량, 유연성, 부착성	General corrosion coat for galvanized wire 방청용(아연도금용전선)
Hyres AC 0362	Xyl/Bu-Ac/Tol	O ~ S	max 1	1.00	50.0	max 4	2.2	66	Quick setting and fast drying, good abrasion with chemical resistance 속건성, 연마성, 내화학성	2K acrylic urethane topclear for automotive wheel 자동차 휠/2K 아크릭 우레탄 상도 투명
Hyres AC 0363	Xyl/Bu-Ac/Tol	H- ~ J+	max 1	0.98	50.5	max 4	1.6	50	Quick setting and fast drying, good hardness 속건성, 고경도	2K acrylic urethane for automotive refinishes and plastics 플라스틱/자동차보수용 2K 아크릭우레탄
Hyres AC 0378	Tol	P ~ U	max 1	0.97	49.0	4 ~ 6	2.7	72	Excellent gloss, good hardness 고광택, 내구성	Fast drying 2K topcoat for automotive and industrial coatings 산업부품/자동차용 속건 2K 상도투명
Hyres AC 0425	Tol/MIBK/n-BuOH	Y ~ Z1	max 1	0.99	50.0	6 ~ 9	1.4	28	Excellent weatherability and good appearance 고외관, 내후성	Solid 2C1B basecoat for automotive 자동차용 하도 Solid 2C1B
Hyres AC 0461	Xyl/K-100/n-BuOH	V ~ Y	max 1	0.97	56.0	10 ~ 13	2.1	25	Excellent appearance and good levelling control 고외관, 표면평활성	Solid 1C1B and topclear for automotive 자동차용 상도 Solid 1C1B
Hyres AC 0485	Xyl	S ~ W	max 1	0.98	49.0	3 ~ 6	1.9	7	Good gloss 고광택	Architecture and heavy duty coatings 건축용, 중방식용

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ACRYLIC RESINS

Hyres® Synthetic Resins

1) THERMOSETTING ACRYLIC RESINS

* Theoretical values / 이론값

Products	Solvent	Viscosity Gardner (25℃)	Color Gardner	Density g/㎤	Non-Volatiles (%)	Acid Value mg KOH/g	*OH Content(%)	*Tg(℃)	Key features	Application
Hyres AC 0515	Bu-Ac	Z- ~ Z2	max 1	1.03	70.0	max 4	4.7	46	Air drying, high gloss and excellent mechanical properties and chemical resistance 내화학성, 기계적 물성, 고외관, 자연건조	2K topcoat or topclear for automotive refinishes 자동차보수용 2K 상도/상도투명
Hyres AC 0620	Xyl/K-100/n-BuOH	L ~ O	max 1	0.96	49.0	5 ~ 7	1.6	1	Excellent workability and good pigment dispersion 작업성, 안료분산성	Solid 1C1B for automotive 자동차용 Solid 1C1B
Hyres AC 0650	Tol/Bu-Ac	W ~ Z1	max 1	0.98	50.0	4 ~ 7	0.7	55	Excellent pigment dispersion property and good compatibility 안료분산성, 상용성	Pigment dispersion resin for colorant 칼라런트용 안료 분산용 수지
Hyres AC 0654	Xyl/Bu-Ac	Z ~ Z3	max 1	1.00	56.0	2.8 ~ 4.5	4.5	29	Fast drying, excellent appearance, good durability, good yellowing resistance 속건성, 고외관, 내구성, 내황변성	Fast drying 2K topclear for automotive refinishes and industrial coatings 산업부품/자동차보수용 속건 2K 상도투명
Hyres AC 0712	Bu-Ac	X ~ Z1	max 1	1.02	69.0	5.5 ~ 8.5	4.6	19	Excellent appearance with good gloss, good recoatability and good polishing property 고외관, 고광택, 재도장성, 연마성	Automotive interior plastic coatings 자동차 내장 플라스틱용
Hyres AC 0900	Xyl/ PMA	X ~ Z1	max 1	0.99	50.0	4 ~ 5.3	1.8	50	Excellent appearance, good adhesion and good pigment dispersion 고외관, 부착성, 안료 분산성	2K basecoat for ABS ABS용 2K 하도
Hyres AC 0930	Xyl/ PMA	X ~ Z	max 1	0.93	60.0	4~7	3.4	55	Fast drying, low temperature cure and good hardness 속건성, 저온 경화성, 고경도	2K topclear for ABS ABS용 2K 상도투명
Hyres AC 1003	Xyl/Bu-Ac	Z1 ~ Z4	max 1	1.01	60.0	max 10	2.3	11	Excellent weatherability and chemical resistance 내후성, 내화학성	1K or 2K basecoat for industrial coatings 산업용 1K/2K 베이스용
Hyres AC 1029	Xyl/K-100/n-BuOH	W ~ Y	max 1	0.99	60.0	10 ~ 14	2.8	12	Excellent appearance with good gloss, good chemical resistance 고외관, 고광택, 내화학성	1K topclear for home appliance(EGI substrate) 1K 상도용(EGI 재질)
Hyres AC 1051	B-Cell/K-100	T ~ W	max 2	0.97	50.5	3 ~ 8	1.6	22	Excellent adhesion 부착성	Clear for can coatings 캔 코팅용 상도
Hyres AC 1209	Xyl/Bu-Ac	X ~ Z	max 5	1.01	65.0	13~15	2.1	19	Excellent appearance and weatherability, high gloss, curring by siloxane 내후성, 고외관, 고광택, 실록산 경화	Top coatings by siloxane curring system for ship and heavy-duty paints 중방식용/선박용 Siloxane 경화 시스템의 상도용
Hyres AC 1970	Xyl/Et-Ac	R ~ U	max 1	1.00	60.0	4 ~ 7	1.8	26	Excellent appearance and weatherability, high gloss 내후성, 고외관, 고광택	2K Top coatings for ship 선박용 2K 상도용
Hyres AC 2052	Xyl/Bu-Ac	R ~ T	max 1	1.00	60.0	max 6	1.9	40	Low viscosity acrylic polyol, superior appearance with good gloss 저점도, 고외관, 고광택	2K Topclear for automotive refinishes and industrial coatings 산업부품/자동차보수용 속건 2K 상도투명
Hyres AC 2058	Tol/Bu-Ac	X ~ Z1	max 1	0.99	50.0	2 ~ 5	0.9	70	Good adhesion, good workability and high hardness, quick setting 부착성, 작업성, 고경도, 속건성	Industrial coatings 산업용
Hyres AC 2100	Tol	X+ ~ Z	max 1	0.90	59.5	4 ~ 7	2.4	3	Good adhesion and workability 부착성 우수, 작업성	Plastic coatings 플라스틱용 아크릭폴리올
Hyres AC 2911	Xyl	X+ ~ Z1-	max 1	1.01	65.0	5 ~ 8	1.9	63	Excellent appearance with superior gloss and good exterior durability 고외관, 고광택, 내구성	2K Acrylic urethane for automotive refinishes 자동차보수용 2K 아크릭우레탄
Hyres AC 3002	Tol/Bu-Ac	W ~ Z	max 1	1.00	50.0	max 2	0.6	82	Fast drying, durability, non-yellowing 속건성, 내구성, 내황변성	Automotive refinish coatings 보수용

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ACRYLIC RESINS

Hyres® Synthetic Resins

1) THERMOSETTING ACRYLIC RESINS

* Theoretical values / 이론값

Products	Solvent	Viscosity Gardner (25℃)	Color Gardner	Density g/㎤	Non-Volatiles (%)	Acid Value mg KOH/g	*OH Content(%)	*Tg(℃)	Key features	Application
Hyres AC 3003	Tol/Bu-Ac	Z3 ~ Z5	max 1	1.00	60.0	max 3	0.8	57	Durability, adhesion, flexibility, workability 내구성, 부착성, 유연성, 작업성	Plastic coatings 플라스틱용
Hyres AC 3007	Xyl/n-BuOH	K ~ N	max 2	1.00	50.0	3~7	1.0	8	Hardness, weather resistance 고경도, 내후성	Metal coatings 금속용
Hyres AC 3008	Tol	R ~ U	max 1	1.00	49.0	3~7	1.3	-12	High gloss 고광택	Industrial coatings/Ink(Gravure) 산업용/그라비아잉크용
Hyres AC 3015	Xyl	Z ~ Z2	max 2	1.00	63.0	6 ~ 10	1.2	84	Fast drying, hardness, high gloss 속건성, 내구성, 고광택	Plastic coatings 플라스틱용
Hyres AC 3055	Tol/Xyl/n-BuOH/K-100	U- ~ W-	max 1	1.00	55.0	5 ~ 10	1.0	-1	Low viscosity melamine cross-linked acrylic resin 저점도, 멜라민 경화	Basecoat for automotive coatings 자동차 Base용
Hyres AC 3059	PMA/B-cell/n-BuOH	Z3 ~ Z5	max 1	1.00	59.0	62 ~ 72	0.9	76	Excellent adhesion and appearance, melamine cross-linked acrylic resin 부착성, 고외관, 멜라민 경화	Industrial coatings(Glass, etc.) 산업용(유리 등)
Hyres AC 3063	Xyl/Bu-Ac	Z1 ~ Z3	max 1	1.02	64.0	3.5~5.0	1.9	50	Fast curring time at low temp.(below 60℃) and high hardness, good adhesion 저온경화(60℃ 이하), 고경도, 부착성	2K acrylic urethane topclear for side-mirror 자동차 Side-mirror용 2K 아크릭우레탄 상도용
Hyres AC 3230	Tol/Bu-Ac/Et-Ac	Z3+ ~ Z5+	max 1	1.01	49.0	max 5	0.8	80	Fast drying, solvent resistance 속건성, 내용제성	Plastic coatings 플라스틱용
Hyres AC 3360	Bu-Ac	Z ~ Z3+	max 1	1.03	60.0	max 5	2.7	41	Excellent weatherability and good hardness 내후성, 고경도	2K acrylic urethane for automotive refinishes 자동차보수용 2K 아크릭우레탄
Hyres AC 3892	Xyl	Z2 ~ Z4	max 5	1.00	70.0	max 5	1.1	20	Excellent appearance and weatherability, adhesion 부착성, 고외관, 내후성	Marine coatings 선박용
Hyres AC 7111	Xyl/K-100	Z1+ ~ Z3+	max 1	1.02	72.5	6 ~ 10	3.4	- 11	Excellent pigment dispersion 안료분산성	Pigment dispersion resin for industrial Plastic coatings 산업용 안료분산용 수지
Hyres AC 9014	Xyl/Bu-Ac	C ~ E	max 1	0.97	50.0	3 ~ 5	4.4	3	Excellent appearance with good weatherability, good flexibility and good impact resistance 고외관, 내후성, 유연성, 내충격성	2K topclear for automotive bumper(TPO substrate) 자동차 범퍼용 2K 상도투명(TPO substrate)

2) THERMOPLASTIC ACRYLIC RESINS

* Theoretical values / 이론값

Products	Solvent	Viscosity Gardner (25℃)	Color Gardner	Density g/㎤	Non-Volatiles (%)	Acid Value mg KOH/g	*Tg(℃)	Key features	Application
Hyres AC 0186	Tol	T ~ W	max 1	0.98	40.0	0.5 ~ 1.5	78	Good printing workability good yellowing resistance 작업성, 내황변성	Base resin for thermal transfer printing ink 열 전사 잉크용 중도
Hyres AC 0531	Tol/Xyl	X ~ Z1	max 1	0.96	48.5	1 ~ 3	49	Fast air-drying and good durability 속건성, 내구성	Architectural coat for roof 건축용(천장용)

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ACRYLIC RESINS

Hyres® Synthetic Resins

2) THERMOPLASTIC ACRYLIC RESINS

* Theoretical values / 이론값

Products	Solvent	Viscosity Gardner (25℃)	Color Gardner	Density g/㎤	Non-Volatiles (%)	Acid Value mg KOH/g	*Tg(℃)	Key features	Application
Hyres AC 0702	Tol	X- ~ Z+	max 1	0.98	50.0	5 ~ 8	54	Fast drying and good durability 내구성, 속건성	Base resin for road marking 바닥용 중도용
Hyres AC 1002	Tol	Z2 ~ Z4	max 1	0.97	40.0	5 ~ 10	95	Fast drying, mechanical property 속건성, 기계적 물성	Plastic coatings, gravure ink 그라비아잉크용/플라스틱용
Hyres AC 1100	Bu-Ac	Z1 ~ Z3	max 1	0.95	30.0	5 ~ 10	100	Fast drying, mechanical property 속건성, 기계적 물성	Plastic coatings 플라스틱용
Hyres AC 1152	Tol	A ~ D	max 1	0.98	50.0	1 ~ 4	100	Excellent pigment dispersion property and good compatibility, high Tg 높은 Tg, 안료분산성, 상용성	Pigment dispersion resin for high conc. colorant 고농도 칼라런트용 안료분산용 수지
Hyres AC 2014	Xyl	Z3 ~ Z5	max 1	0.99	50.0	6 ~ 10	60	Air-drying, good adhesion and chemical resistance 자연건조, 부착성, 내화학성	Top coat for ship 선박용 상도
Hyres AC 2117	Tol/Bu-Ac/K-100	Z1 ~ Z4	max 3	0.96	38.0	3 ~ 6	56	Air-drying, good adhesion and chemical resistance 자연건조, 부착성, 내화학성	1K primer for automotive bumper 자동차용 1K 프라이머용
Hyres AC 6202	Xyl	A1 ~ B	max 1	0.97	59.0	1 ~ 5	-54	Good flexibility, Low Tg 낮은 Tg, 유연성	Coil coatings 코일코팅용
Hyres AC 9431	Bu-Ac/Et-Ac	W ~ Y	-	0.96	34.0	5 ~ 10	80	Fast drying 속건성	Cl free for mobile coatings 모바일용(Cl free)

3) MODIFIED ACRYLIC RESINS

* Theoretical values / 이론값

Products	Solvent	Viscosity Gardner (25℃)	Color Gardner	Density g/㎤	Non-Volatiles (%)	Acid Value mg KOH/g	*OH Content (%)	Resin type	Key features	Application
Hyres HA 1500	B-Cell/K-150/Xyl	P ~ T	max 3	0.99	45.0	14~18	-	Epoxy modified acrylic	Excellent appearance and gloss 고외관, 고광택	Industrial coatings, gravure ink 그라비아잉크용/산업용
Hyres HA 1600	B-Cell/K-150/K-100/Xyl	R ~ U	max 3	0.99	45.0	13~17	-	Epoxy modified acrylic	Excellent appearance and gloss 고외관, 고광택	Industrial coatings, gravure ink 그라비아잉크용/산업용
Hyres HA 3001	Bu-Ac/Xyl	W ~ Z	max 1	0.99	51.5	2.5~6.5	0.9	Epoxy modified acrylic	Excellent weatherability and good appearance 고외관, 내후성	2K basecoat for ABS substrate ABS 2K 중도용
Hyres HA 3203	Bu-Ac/Et-Ac	Z3 ~ Z5	max 1	1.00	55.0	max 5	1.7	Polyester modified acrylic	Scratch and solvent, heat resistance, good adhesion 내스크레치성, 내용제성, 내열성, 부착성	Ink, wood finish, paper coatings, PVC 잉크용/목재용상도/종이용/PVC용
Hyres HA 3207	PMA	Z1 ~ Z3	max 1	0.99	50.0	max 5	1.7	Polyester modified acrylic	Scratch and solvent, heat resistance, good adhesion 내스크레치성, 내용제성, 내열성, 부착성	Ink, wood finish, paper coatings, PVC 잉크용/목재용상도/종이용/PVC용
Hyres HA 5500	Xyl/K-100	2,000 ~4,000cps	max 1	1.00	55.0	-	1.4	Urea modified acrylic	Workability and exterior durability, excellent appearance, good rheology control 작업성, 내구성, 고외관, 흐름방지	Auxiliary resin of 2K acrylic urethane topclear for automotive 자동차용 2K 아크릭 우레탄 보조수지

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Hyres Synthetic Resins

1) SHORT OIL ALKYD RESINS

* Theoretical values / 이론값

Products	Solvent	Oil Type	*Oil Length	Viscosity Gardner (25℃)	Color Gardner	Density g/㎤	Non-Volatiles (%)	Acid Value mg KOH/g	Resin Type	Key features	Application
Hyres AK 3760	Xyl	Coconut FA	34	Y ~ Z1	max 5	1.04	60.0	max 12	Short-oil length alkyd	Pigment wetting, good adhesion 안료분산성, 부착성	Top coat for automotive and baking enamel for general purpose 자동차용 상도/일반용 소부에나멜
Hyres AK 3776	Xyl	Coconut FA	27	Z1 ~ Z3	max 10	1.01	70.0	max 20	Short-oil length alkyd	High gloss, high solid 고광택, 고고형분	Wood finish, N.C lacquer 목공용/N.C락카
Hyres AK 5757	Xyl/Tol	Coconut FA	32	X ~ Z	max 4	1.01	55.0	max 20	Short-oil length alkyd	High gloss 고광택	Wood finish, N.C lacquer 목공용/N.C락카
Hyres AK 5000	Xyl	SOFA	33	Z2+ ~ Z3+	max 10	1.01	50.0	max 15	Short-oil length alkyd	Hardness, chemical resistance, fast drying 경도, 내화학성, 속건성	Stoving enamels, N.C lacquer 소부 에나멜/N.C락카
Hyres AK 5455	Tol, Bu-Ac	SOFA	34	Z2 ~ Z4	max 9	1.01	53.0	9 ~ 15	Short-oil length alkyd	Fist drying, hardness, adhesion 속건성, 경도, 부착성	Wood finish, N.C lacquer 목공용/N.C락카
Hyres AK 5075	Xyl	Soya oil	27	X ~ Z	max 5	1.01	74.0	max 15	Short-oil length alkyd	Hardness, chemical resistance, fast drying 경도, 내화학성, 속건성	Wood finish, N.C lacquer 목공용/N.C락카

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Hyres® Synthetic Resins

2) MEDIUM-LONG OIL ALKYD RESINS

* Theoretical values / 이론값

Products	Solvent	Oil Type	*Oil Length	Viscosity Gardner (25℃)	Color Gardner	Density g/㎤	Non-Volatiles (%)	Acid Value mg KOH/g	Resin Type	Key features	Application
Hyres AK 4560	Xyl	Castor	41	X ~ Z	max 8	0.95	60.0	max 10	Medium-oil length alkyd	Fast drying, adhesion, flexibility 속건성, 부착성, 유연성	Wood finish, metal lacquer 목공용 상도, 금속용 락카
Hyres AK 4775	Xyl	Coconut	37	X ~ Z	max 4	0.92	75.0	max 18	Medium-oil length alkyd	High gloss, color, good durability 고광택, 색상, 내구성	Wood finish, top clear 목공용상도, 상도클리어
Hyres AK 4010	Xyl/ HV-1	SOFA	49	Z6 ~ Z6+	max 12	0.93	55.0	max 12	Medium-oil length alkyd	Fast air drying, high gloss, good adhesion 속건성, 고광택, 부착성	Air drying enamel for steel, wood 철재, 목재 자연건조 에나멜
Hyres AK 5370	Bu-Ac	Tall Oil	58	G ~ J	max 8	0.98	70.0	max 16	Medium-oil length alkyd	Fast drying, dispersibility 속건성, 분산성	Architectural, industrial coatings 건축용, 일반공업
Hyres AK 2020	ALGEN 60NH	Linseed oil	58	Q ~ S	max 5	1.05	100.0	max 14	Medium-oil length alkyd	Cold resistance, fast air drying 내한성, 속건성	Architectural, industrial coatings 건축용, 일반공업
Hyres AK 2820	ALGEN 60NH	Linseed oil	58	Q ~ S	max 5	1.04	100.0	max 14	Medium-oil length alkyd	Cold resistance, fast air drying 내한성, 속건성	Architectural, industrial coatings 건축용, 일반공업
Hyres AK 4010	Tol	SOFA	48	Z3 ~ Z5	max 10	0.92	70.0	max 12	Medium-oil length alkyd	Adhesion, flexibility, low cost 부착성, 유연성, 저단가	Architectural, industrial coatings 건축용, 일반공업
Hyres AK 4030	Xyl	SOFA	35	Z1 ~ Z3	max 10	0.93	55.0	max 10	Medium-oil length alkyd	Durability, pigment dispersion 내후성, 안료분산성	Wood finish, industrial coatings 목공용 상도, 일반공업용
Hyres AK 5400	Xyl/ HV-1	SOFA	53	V ~ X	max 10	0.91	48.0	max 10	Medium-oil length alkyd	Good adhesion, good durability 부착성, 내구성	Air drying enamel for general coatings 일반용 자연건조에나멜
Hyres AK 5425	Xyl/ HV-1	SOFA	49	Z6 ~ Z6+	max 12	0.93	55.0	max 12	Medium-oil length alkyd	Fast air drying, high gloss, good adhesion 속건성, 고광택, 부착성	Air drying enamel for steel, wood 철재, 목재 자연건조 에나멜
Hyres AK 5465	Xyl/ HV-1	SOFA	50	Z5 ~ Z6	max 13	0.95	65.0	max 9	Medium-oil length alkyd	Excellent drying, high gloss 속건성, 고광택	Top coat for heavy duty alkyd primer 중방식용 알키드 프라이머 상도용
Hyres AK 5477	Xyl/ HV-1	SOFA	53	Z5+ ~ Z7-	max 10	0.98	70.0	max 9	Medium-oil length alkyd	Fast air drying, high gloss, good adhesion 속건성, 고광택, 부착성	Air drying enamel for steel, wood 철재, 목재 자연건조 에나멜
Hyres AK 6460	Xyl/ HV-1	SOFA	62	Z+ ~ Z1+	max 10	0.90	60.0	max 12	Long-oil length alkyd	Good adhesion, good durability 부착성, 내구성	Air drying enamel for steel, wood 철재, 목재 자연건조 에나멜
Hyres AK 8800	-	DCOFA	80	Z1 ~ Z4	max 5	1.00	100.0	max 3	Long-oil length alkyd	Excellent workability 작업성 우수	PUD for architectural coatings 건축 PUD용

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3) MODIFIED ALKYD RESINS

* Theoretical values / 이론값

Products	Solvent	Oil Type	Viscosity Gardner (25℃)	Color Gardner	Density g/㎤	Non-Volatiles (%)	Acid Value mg KOH/g	Resin Type	Key features	Application
Hyres HK 7233	Xyl\/HV-1/ n-BuOH	Linseed/Soya	Z ~ Z3	max 10	0.92	55.0	max 3	Urethane modified alkyd	Fast air drying , gloss retention 속건성, 광택유지율	Urethane varnish for floor and wood 목공 마루판용 우레탄바니쉬
Hyres HK 4500	Xyl	Linseed/Tung oil/ DCOFA	S ~ V	max 10	0.98	50.0	max 10	Acrylic modified alkyd	Fast drying, chemical resistance, hardness, high gloss 속건성, 내화학성, 경도, 광택	Architectural, industrial machine 건축용, 산업기계용
Hyres HK 0033	PMA/Xyl/ K-100	Oil free	S ~ V	max 3	1.03	60.0	max 10	Acrylic modified polyester	High gloss, excellent gloss retention 고광택, 광택유지율	Top coat for industrial coatings 산업용 상도
Hyres HK 4282	Xyl	SOFA	Z ~ Z1	max 10	0.99	60.0	max 10	Acrylic modified alkyd	Fast air drying , recoating 속건성, 재도장성	Steel coatings for architecture 건축용 철재
Hyres HK 4375	B-Cell	SOFA	Z1 ~ Z4	max 5	1.02	70.0	33.5 ~ 43.5	Waterborne acrylic modified alkyd	Fast air drying, good durability 속건성, 내구성	Industrial iron pipe coatings 산업용 철재파이프
Hyres HK 4376	B-Cell/Water	SOFA	Z5 ~ Z8	max 5	1.02	50.0	23 ~ 33	Waterborne acrylic modified alkyd	Fast air drying, good workability 속건성, 작업성	Industrial iron pipe coatings 산업용 철재파이프
Hyres HK 5450	DMC/Xyl	SOFA	S ~ U	max 10	0.98	55.0	max 10	Acrylic modified alkyd	Low VOC, fast drying, hardness, weather/ chemical resistance 저VOC, 속건성, 경도, 내후성, 내화학성	Architectural, industrial machine 건축용, 산업기계용
Hyres HK 7140	Xyl/HV-1/ n-BuOH	SOFA	U ~ X	max 11	0.92	55.0	max 3	Urethane modified alkyd	Fast air drying , gloss retention 속건성, 광택유지율	Urethane varnish for floor and wood 목공 마루판용 우레탄바니쉬
Hyres HK 7282	Xyl	SOFA	Z ~ Z1	max 10	0.99	60.0	max 10	Acrylic modified alkyd	Fast air drying , recoating 속건성, 재도장성	Steel coating for architecture 건축용 철재
Hyres HK 8416	Tol/Xyl/DMC	SOFA	14 ~ 18 Sec (Ford #4)	max 3	0.92	27.0	max 10	Acrylic modified alkyd	Fast air drying, impact resistance 속건성, 내충격성	Industrial pipe coatings 산업용 파이프
Hyres HE 7005	PM	SOFA	Z3+ ~ Z4+	max 6	1.04	70.0	3 ~ 6	Epoxy modified alkyd	Fast air drying, adhesion, gloss retention 속건성, 부착성, 광택유지율	Architectural, industrial machine 건축용, 산업기계용
Hyres HK 5050	Xyl	SOFA/DCOFA	X+ ~ Z1	max 12	0.96	50.0	max 6	Acrylic modified alkyd	High gloss, good adhesion 고광택, 부착성	Top clear coat for automotive 자동차용 상도투명
Hyres HK 1800	Xyl/Bu-Ac	TOFA	T ~ W	max 5	0.99	55.0	max 10	Acrylic modified alkyd	Toughness, flexibility 질김성, 유연성	Primer for plastic, automotive refinish coatings 플라스틱용 하도, 자동차보수용
Hyres HK 4111	Xyl/Tol	Oil free	V ~ W	max 1	0.95	68.0	max 3	Silicone modified alkyd	Good weather resistance 내후성	Steel coatings for architecture 건축용 철재

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POLYESTER RESINS

Hyres® Synthetic Resins

1) SATURATED POLYESTER RESINS

* Theoretical values / 이론값

Products	Solvent	Viscosity Gardner (25℃)	Color Gardner	Density g/㎤	Non-Volatiles (%)	Acid Value mg KOH/g	Resin Type	*Molecular Weight (Mw)	*Tg (℃)	*OH Value	Key features	Application
Hyres PE 0095	K-100/Xyl	V~X	max 2	1.05	70.0	max 5	Saturated polyester	1,700~2,100	20	66±5	Good weatherability 내후성	PCM, Industrial coatings PCM, 공업용
Hyres PE 0120	-	30~40ps	max 1	1.10	100.0	max 2	Polyester polyol	1,100~1,200	-10		Soft feeling, flexibility, adhesion 질감, 굴곡성, 부착력	Plastic coatings 플라스틱
Hyres PE 0450	Xyl/K-150/ Cy-hexanone	Y+ ~ Z3	max 7	1.05	46.5	max 10	Saturated polyester	20,000~25,000	43	15±5	Excellent flexibility, corrosion resistance, high polymer 가공성, 내식성, 하이폴리머	Primer for PCM (Home appliance) 가전 하도용
Hyres PE 0480	K-100/ Cy-hexanone/ Isophorone	U~W	max 3	1.02	42.0	5~8	Saturated polyester	19,000~23,000	63	10±5	Adhesion to metal, corrosion resistance 철재 부착력, 내식성	PCM coatings
Hyres PE 0500	Xyl/K-150/i-BuOH	Z ~ Z2	max 5	1.05	65.0	max 10	Saturated polyester	5,000~7,000	35	40±5	Hardness, chemical resistance 경도, 내화학성	Top coat for PCM (Architectural materials) 건재 상도용
Hyres PE 0503	Xyl/K-150	Z1 ~ Z3	max 5	1.05	65.0	max 10	Saturated polyester	5,000~6,500	25	25±5	Good flexibility, fast curing time 가공성, 경화속도 빠름	Top coat for PCM (Architecture materials) 건재 상도용
Hyres PE 0505	Xyl/K-150	Z2 ~ Z5	max 3	1.06	65.0	max 6.5	Saturated polyester	5,000~7,000	15	25±5	High gloss, excellent hardness 고광택, 경도	Top coat for PCM (Architecture materials) 건재 상도용
Hyres PE 0510	Xyl/K-150/i-BuOH	Z ~ Z3	max 5	1.02	60.0	max 12	Saturated polyester	3,000~5,000	25	95±5	Pigment wetting, flexibility 안료 분산성, 가공성	Top coat for PCM (Architecture materials) 건재 상도용
Hyres PE 0562	Xyl/K-150/PMA	Z2 ~ Z4	max 3	1.07	65.0	6~9	Saturated polyester	3,000~5,000	-	31±5	Low temperature curing 저온경화형	PCM coatings PCM
Hyres PE 0670	Xyl/Bu-Ac	W ~ Y	max 3	1.05	79.0	max 5	Saturated polyester	2,000~3,000	10	150±5	Outstanding exterior durability, weatherability 내구성, 내후성	Floor coating for architecture 건축 바닥재용
Hyres PE 0700	Xyl/K-150/ Cy-hexanone	X ~ Z+	max 5	1.04	51.5	max 6	Saturated polyester	19,000~22,000	37	15±5	High flexibility, good adhesion to substrate, high polymer 가공성, 부착력, 하이폴리머	Primer for PCM (Home appliance) 가전 하도용
Hyres PE 0720	Xyl/K-150	Z- ~ Z2-	max 3	1.07	65.0	max 3	Saturated polyester	5,000~6,000	-10	45±5	Excellent color and gloss retention 선영성	Top clear coat for PCM (Architecture materials) 건재 상도용 클리어
Hyres PE 0902	Xyl/K-100/PMA	X ~ Z1	max 3	1.07	70.0	max 4	Saturated polyester	3,000~5,000	-	55±5	High gloss and excellent retention 고광택, 광택 유지율	Clear coatings for automotive 자동차 상도 클리어용
Hyres PE 1000	Xyl/K-100	Y ~ Z	max 5	1.08	58.0	max 6	Saturated polyester	9,000~11,000	23	30±5	Good adhesion, flexibility, corrosion resistance 부착력, 가공성, 내식성	Primer for PCM (Architecture materials) 건재 하도용
Hyres PE 1014	PMP	W ~ Z	max 2	1.09	75.0	126~136	Saturated polyester	1,000~3,000	20	180±5	Workability and good impact resistance 작업성, 내충격성	Top clear for automotive 자동차 상도용 클리어
Hyres PE 1070	Xyl/K-100	T+ ~ W+	max 3	1.07	70.0	max 3	Saturated polyester	4,000~4,500	-5	95±5	High-solid, good adhesion 하이솔리드, 부착력	Primer for PCM (Architecture materials) 건재 하도용 하이솔리드
Hyres PE 1112	Xyl	G ~ I	max 2	1.09	97.0	max 0.3	Saturated polyester	8,000~10,000	-	116±5	Good chemical resistance 내화학성	Surface treatment coatings 표면 처리제

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POLYESTER RESINS

Hyres® Synthetic Resins

1) SATURATED POLYESTER RESINS

* Theoretical values / 이론값

Products	Solvent	Viscosity Gardner (25℃)	Color Gardner	Density g/㎤	Non-Volatiles (%)	Acid Value mg KOH/g	Resin Type	*Molecular Weight (Mw)	*Tg (℃)	*OH Value	Key features	Application
Hyres PE 2003	Xyl/PMA	Z2 ~ Z4	max 2	1.11	80.0	max 4	Saturated polyester	5,000~7,000	–	120±5	Non-yellowing 무황변	Plastic top coatings 플라스틱 상도용
Hyres PE 2065	Xyl/Isophorone/ Cy-hexanone/Tol	Y ~ Z1	max 3	1.04	51.0	max 2.5	Saturated polyester	4,000~5,000	58	22±5	Excellent adhesion, good hardness 부착력, 경도	Adhesive for PCM PCM 접착제용
Hyres PE 3198	Xyl/K-100	W ~ Z	max 3	1.04	70.0	max 5	Saturated polyester	8,000~10,000	-8	56±5	Good weatherability, impact resistance 내후성, 내충격성	Top clear for PCM (Home appliance) 가전 상도용 클리어, 잉크용
Hyres PE 3960	Xyl/K-100/ Cy-hexanone	P ~ T	max 3	1.04	50.0	max 2	Saturated polyester	10,000~13,000	10	33±5	Workability 작업성	PCM coatings PCM
Hyres PE 5075	Cell-Ac	Y ~ Z2	max 3	1.13	75.0	max 6	Saturated polyester	4,000~6,000	–		Adhesion, hardness 접착력, 경도	Wood finishs, (Wood floor) 목재용 마감재
Hyres PE 5080	MIBK/Tol	Z ~ Z3	max 1	1.14	82.0	max 5	Saturated polyester	4,000~6,000	–		Flexibility, adhesion 굴곡성, 부착력	Wood(PVC sheet) finishs 목재용 마감재
Hyres PE 5180	Xyl/MIBK	Z ~ Z2	max 2	1.14	80.0	max 5	Saturated polyester	4,000~6,000	–		Weather-resistance, flexibility, adhesion 내후성, 굴곡성, 부착력	Chipping primers for bumper and automotive 자동차 범퍼 내치핑용 하도
Hyres PE 7150	Xyl/PMA	X ~ Z	max 3	1.02	51.5	max 1.5	Saturated polyester	14,000~18,000	–		Excellent adhesion 부착력	Metal primer 금속 하도용
Hyres PE 7190	Xyl/Bu-Ac	Z1 ~ Z2	max 2	1.10	88.0	max 0.5	Polyester polyol	1,000~2,000	25	–	Chemical resistance 내화학성	Industrial coatings 공업용
Hyres PE 8270	B-Carbitol/DIW	Z3+ ~ Z6+	max 1	1.14	70.0	18~21	Water soluble polyester	4,000~6,000	-6	75±5	Excellent compatibility, chip-resistance 상용성, 내치핑성	Waterborne grinding resin for automotive 자동차 중도 분산용 수용성 수지
Hyres PE 9765	Xyl/K-150/ K-100/DBE	Z1 ~ Z3	max 3	1.10	65.0	max 2	Saturated polyester	7,000~9,000	17	56±5	Good hardness balanced with flexibility 경도와 가공성	Top coat fot PCM (Home appliance) 가전 상도용

2) MODIFIED POLYESTER RESINS

* Theoretical values / 이론값

Products	Solvent	Viscosity Gardner (25℃)	Color Gardner	Density g/㎤	Non-Volatiles (%)	Acid Value mg KOH/g	Resin Type	Key features	Application
Hyres HE 7025	Xyl	W ~ Z	max 4	1.02	75	5~8	Epoxy modified polyester	Hardness, adhesion, gloss, chemical resistance 경도, 부착력, 광택, 내화학성	Chipping primers for bumper and automotive 자동차 범퍼 내치핑 하도용
Hyres HK 6250	Cell-Ac/K-150/Xyl	V ~ Y	max 3	1.03	60	max 10	Silicone modified Polyester	Heat resistance, durability 내열성, 내구성	Steel coatings for architecture 건재 철재 코팅용

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2) MODIFIED POLYESTER RESINS

* Theoretical values / 이론값

Products	Solvent	Viscosity Gardner (25℃)	Color Gardner	Density g/㎤	Non-Volatiles (%)	Acid Value mg KOH/g	Resin Type	Key features	Application
Hyres HP 0200	IPA/Tol/MEK	S ~ V	max 2	0.98	42	max 5	Phenoxy	Anti-corrosion, adhesion, hardness 내식성, 부착력, 경도	Primer for non-metal & metal, anti-corrosive coatings 비철금속 하도용, 철재 내식용
Hyres HP 2210	Xyl/Cell-Ac/MIBK	Z ~ Z4	max 5	0.97	42	max 4	Urethane modified epoxyester	Excellent adhesion, anti-corrosion, toughness, flexibility 부착력, 내식성, 질김성, 굴곡성	Primer for coil coatings PCM 하도용
Hyres HP 4400	Xyl	I ~ M	max 10	0.95	50	max 4	Soya oil modified epoxyester	Excellent adhesion, anti-corrosion 부착력, 내식성	Can coating, anti-corrosive coatings for metal 캔코팅, 금속 부식방지용
Hyres HP 7020	Cell-Ac/n-BuOH/Xyl	Z ~ Z4	max 3	1.12	65	-	Silicone modified polyester	Good hardness and flexibility 경도, 가공성	Binder for heat-resistant coatings (marking paint) 내열 도료용 수지 (마킹 도료)
Hyres HP 8911	XYL/Bu-Ac	Z2 ~ Z5	max 3	1.06	70	-	Urethane modified polyester	Chipping resistance, non-yellowing, good adhesion 내치핑성, 무황변성, 부착력	Primer for automotive 자동차 하도용

3) SATURATED POLYESTER RESINS FOR POWDER

* Theoretical values / 이론값

Products	Acid Value mg KOH/g	Viscosity Gardner (25℃)	Color Gardner	*OH Value mg KOH/g	Reactive sec(180℃)	Curing Type	*Tg (℃)	Resin Type	Key features	Application
Hyres PE 1681	42 ~ 46	20 ~ 30	max 1	-	90 ~ 110	Hybrid	55	Saturated polyester	Fast curing, excellent flow, high gloss 경화성, 흐름성, 고광택	Interior/electric home appliances (refrigerator, washing machine cover or parts) 실내용/가전제품(냉장고, 세탁기커버/부품)
Hyres PE 1781	27 ~ 33	50 ~ 80	max 2	-	110 ~ 130	Hybrid	60	Saturated polyester	Good flow, high wetting property 흐름성, 습윤성	Interior/electric home appliances (wire rack, air conditioner etc.) 실내용/가전제품(선반, 에어컨)
Hyres PE 3100	40 ~ 60	30 ~ 36	max 2	-	135 ~ 185	TGIC	67	Saturated polyester	Weathering resistance, good flexibility, good flow 내후성, 유연성, 흐름성	Exterior/outdoor structures (fence, hand rail, street light) automotive parts, cultivator, tiller (roof rack, fuel tank, engine oil cap) 외부용/옥외건축물(휀스, 난간, 가로등), 자동차부품 (루프랙, 연료탱크, 엔진오일켑)
Hyres PE 3101	28 ~ 42	30 ~ 36	max 2	-	200 ~ 250	TGIC	62	Saturated polyester	Weathering resistance, good flexibility, good flow 내후성, 유연성, 흐름성	Exterior/outdoor structures (fence, hand rail, street light) 외부용/옥외건축물(휀스, 난간, 가로등)
Hyres PE 3600	32 ~ 38	14 ~ 30	max 2	-	150 ~ 180 (at 200℃)	TGIC	60	Saturated polyester	Excellent outdoor weathering 초내후성	Outdoor structures, automotive coatings 옥외건축물, 자동차부품
Hyres PE 5150	1 ~ 3	48 ~ 68	max 2	46 ~ 52	-	Urethane	60	Saturated polyester	High gloss, good flow 고광택, 흐름성	Electric home appliances, auto vending machine 가전제품, 자판기

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Hyres Synthetic Resins

4) UNSATURATED POLYESTER RESINS

* Theoretical values / 이론값

Products	Solvent	Viscosity Gardner (25℃)	Color Gardner	Density g/㎤	Non Volatiles %	Acid Value mg KOH/g	GEL TIME Min.	Resin Type	Key features	Application
Hyres FU 1460	SM	E ~ G	max 2	1.10	70.0	36 ~ 42	–	Unsaterated polyester	Fire retardant properties, mechanical properties, UV cure 난연특성, 기계적특성, UV경화성	SMC for LNG steel pipe LNG강관 난연보냉용 SMC (UV경화형)
Hyres FU 1910	–	J ~ L	max 3	1.18	100.0	max 2.5	–	Unsaterated polyester	Excellent dispersion, SM free, low viscosity 안료분산성, 친환경(100%고형분), 저점도	For toner 안료분산용 수지
Hyres FU 2180	SM	1700 ~ 2300 cps	max 2	1.01	65.0	16 ~ 20	10.5 ~ 12.5 (at 82.2℃)	Unsaterated polyester	High gloss, hardness, high reactivity, chemical resistance 고광택, 고경도, 고반응성, 내화학성	BMC for automotive head lamp reflector 자동차 반사경용 BMC주수지
Hyres FU 2900	–	470 ~ 570 cps	max 1	1.18	100.0	12 ~ 25	–	Unsaterated polyester	Excellent dispersion, SM free 안료분산성, 친환경(100%고형분)	For toner 안료분산용 수지
Hyres FU 3235	SM	2700 ~ 3400 cps	max 1	0.98	35.0	–	–	PMMA	Low shrinkage properties 저수축성	LPA for BMC BMC저수축제
Hyres FU 3240	SM	8800 ~ 10200 cps	max 1	0.98	40.0	–	–	PMMA	Low shrinkage properties 저수축성	LPA for BMC BMC저수축제
Hyres FU 4060	SM	H ~ J	max 1	1.11	59.0	12 ~ 22	2 ~ 3 (at 25℃)	Unsaterated polyester	High gloss, fast cure, adhesion 고광택, 속경화, 부착력	Furniture (PET adhesive) 가구용 PET접착제
Hyres FU 5310	SM	U ~ V	max 2	1.14	65.0	15 ~ 20	5.5 ~ 7 (at 82.2℃)	Unsaterated polyester	Hardness, high reactivity, chemical resistance 고경도, 고반응성, 내화학성	Hot press(for tray) 쟁반 성형용
Hyres FU 5590	MMA	V+ ~ X (80% in MMA)	max 1	1.57	92.0	9 ~ 11.5	–	Brominated vinyl ester	High density, high reflective index, fire retardant 고비중, 고굴절, 난연특성	Clear chip for scagliola 인조대리석용 고비중 투명칩
Hyres FU 5922	SM	G ~ I	max 3	1.08	58.0	8 ~ 13	13 ~ 25 (at 25℃)	Vinyl ester	Acid & alkali & salt water resistance 내산성, 내알칼리성, 내염수성	Manufacture products that require corrosion resistance 내식FPR용 수지
Hyres FU 6335	SM	S+ ~ U+	max 2	1.12	70.0	20 ~ 32	5 ~ 8 (at 25℃)	Unsaterated polyester	Abrasive wear property, fast cure, adhesion for metal 연마성, 속경화, 메탈부착성	Car repair putty resin 자동차 보수 퍼티용수지
Hyres HU 3060	MMA	C ~ E	max 5	1.10	59.0	–	17 ~ 21 (at 82.2℃)	Modified urethane acrylate	Elastic bending strength, heat-resistance, fast cure 휨강도, 내열성, 속경화	Central-rod for fiber optic-cable 광케이블 중심지지대 성형용

* **Gel time :**
Application of gelation time measurement methool of KSM 3305.
KSM 3305의 겔화시간 측정법을 적용.

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UV OLIGOMER

Hyres Synthetic Resins

1) EPOXY ACRYLATE

* Theoretical values / 이론값

Products	Diluent	Viscosity Gardner (25℃)	Color Gardner	Density g/㎤	Non-Volatiles (%)	Acid Value mg KOH/g	*Functionality	Resin Type	Key features	Application
Hyres FO 1200	–	V+ ~ W	max 1	1.22	100.0	max 5	2	Epoxy acrylate	Fast cure, high gloss, excellent solvent resistance 속경화, 고광택, 내용제성	Fiber optic cable coatings 광케이블 코팅용
Hyres FO 1285	HDDA	B ~ D (50% in HDDA)	max 2	1.17	85.0	max 2	2	Epoxy acrylate	Adhesion, flexibility, chemical resistance 부착성, 유연성, 내화학성	Under coat for wood, general plastics 목재 및 플라스틱 하도
Hyres FO 1500	TPGDA	Z5 ~ Z7+	max 1	1.11	75.0	max 5	2	Epoxy acrylate	Adhesion, flexibility, chemical resistance 부착성, 유연성, 내화학성	Plastics/PET/PMMA

2) URETHANE ACRYLATE

Products	Diluent	Viscosity Gardner (25℃)	Color Gardner	Density g/㎤	Non-Volatiles (%)	Acid Value mg KOH/g	*Functionality	Resin Type	Key features	Application
Hyres FO 1306	TMPTA	Z5 ~ Z7	max 1	1.09	70.0	–	2	Urethane acrylate	Excellent curing speed, good solvent resistance 속경화, 내용제성	UV ink
Hyres FO 2101	–	Z7- ~ Z7+	max 1	1.30	100.0	–	10	Urethane acrylate	Fast curing, high scratch hardness, levelling 고반응성, 고경도 내스크래치, 표면평활성	Topcoat for plastic-substrates 플라스틱소재 고경도 상도
Hyres FO 2201	Et-Ac	Z2- ~ Z3+	max 2	1.08	80.0	–	2	Urethane acrylate	Adhesion, flexibility, chemical resistance 부착성, 유연성, 내화학성	Basecoat for sputtering 진공증착용 하도
Hyres FO 2213	IBOA	Z4 ~ Z5	max 1	1.30	75.0	–	2	Urethane acrylate	Adhesion, flexibility 부착성, 유연성	Topcoat for general plastics 플라스틱소재 범용 상도
Hyres FO 2220	THFA	Z4 ~ Z6 (80% in Bt-Ac)	max 1	1.02	80.0	–	2	Urethane acrylate	Adhesion, chemical resistance, weather resistance 부착성, 내화학성, 내후성	UV adhesive UV접착제 (유리, 목공 등)
Hyres FO 4250	THFA/IBOA	Z3 ~ Z6	max 1	1.07	50.0	–	2	Urethane acrylate	Adhesion, flexibility, high-elasticity 부착성, 유연성, 고신율	UV adhesive UV접착제 (TV프레임 플라스틱소재)
Hyres FO 4265	HPMA	Z5- ~ Z6+	max 1	1.10	55.0	–	2	Urethane acrylate	Adhesion, flexibility, high-elasticity 부착성, 유연성, 고신율	UV adhesive UV접착제

3) POLYESTER ACRYLATE

* Theoretical values / 이론값

Products	Diluent	Viscosity Gardner (25℃)	Color Gardner	Density g/㎤	Non-Volatiles (%)	Acid Value mg KOH/g	*Functionality	Resin Type	Key features	Application
Hyres FO 7300	DTMPTA/ DPHA/TMPTA	I ~ L	max 5	1.20	40.0	max 6	2	Modified polyester	Adhesion, flexibility, high-elasticity 부착성, 유연성, 고신율	UV ink
Hyres FO 7500	TMPTA	H ~ K	max 8	1.10	68.0	max 5	2	Modified polyester	Adhesion, flexibility, high-elasticity 부착성, 유연성, 고신율	UV ink

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- DTMPTA : Ditrimethyolpropane triacrylate
- DPHA : Dipentaerythritol hexaacrylate
- TMPTA : Trimethyolpropane triacrylate
- HDDA : Hexanediol diacrylate
- TPGDA : Tripropylene glycol diacrylate
- IBOA : Isobornyl acrylate
- THFA : Tetrahydrofurfuryl acrylate
- HPMA : Hydroxypropyl methacrylate

URETHANE RESINS

Hyres® Synthetic Resins

* Theoretical values / 이론값

Products	Solvent	Viscosity Gardner (25℃)	Color Gardner	Density g/㎤	Non-Volatiles (%)	Resin Type	Key features	Application
Hyres HU 3030	Et-Ac / IPA	S+ ~ U-	max 1-	0.91	31.5	Urethane	Excellent dispersion, high-elasticity, fast dry 안료분산성, 고신율, 속건	Grinding resin for ink 잉크용 안료분산
Hyres HU 3031	Et-Ac / IPA	T- ~ U+	max 1-	0.92	31.5	Urethane	Excellent dispersion, high-elasticity, fast dry 안료분산성, 고신율, 속건, 분산점도 안정성	Grinding resin for ink 잉크용 안료분산
Hyres HP 0017	MEK/IPA	U ~ X+	max 3	0.87	30.0	Urethane	Toluene-free, good adhesion, premium grade 톨루엔 프리, 부착력, 프리미엄급	Gravure ink 그라비아 잉크용
Hyres HP 1507	Et-Ac/IPA/MEK	N ~ S	max 3	0.92	30.0	Urethane	Toluene-free, low viscosity 톨루엔 프리, 저점도	Gravure ink 그라비아 잉크용
Hyres HP 1550	MEK/IPA	Q ~ U	max 3	0.90	35.0	Urethane	Toluene-free 톨루엔 프리	Gravure ink 그라비아 잉크용
Hyres HP 2002	MEK/IPA	W ~ Y+	max 2	0.89	30.0	Urethane	Toluene-free, good TiO_2 dispersion 톨루엔 프리, TiO_2 분산성 우수	Gravure ink 그라비아 잉크용

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Hyres Synthetic Resins

1) ELECTRO DEPOSITION COATINGS

* Theoretical values / 이론값

Products	Solvent	Viscosity Gardner (25℃)	Color Gardner	Density g/㎤	Non-Volatiles (%)	Acid Value mg KOH/g	Resin Type	Key features	Application
Hyres WE 0712	DIW/MIBK	max 100 cps	-	1.06	36.0	30 ~ 40	Epoxy	Low curing 저온경화	Automotive and industrial electrodeposition / F-2 자동차, 산업용 전착
Hyres WE 0850	B-Cell	Y+ ~ Z4	max 7	1.04	49.0	0.8	Epoxy	Excellent grinding 연마성	Automotive and industrial electrodeposition / F-1 자동차, 산업용 전착
Hyres WE 0877	DIW/MIBK	max 100 cps	—	1.05	36.0	31 ~ 37	Epoxy	Low cost 저가	Automotive and industrial electrodeposition / F-2 자동차, 산업용 전착
Hyres WE 1740	DIW	—	—	1.01	36.0	—	Waterborne epoxy modified acrylic resin	Edge cover	Automotive and industrial electrodeposition / M.gel 자동차, 산업용 전착

2) WATER SOLUBLE

Products	Solvent	Viscosity Gardner (25℃)	Color Gardner	Density g/㎤	Non-Volatiles (%)	Acid Value mg KOH/g	Resin Type	Key features	Application
Hyres WA 1179	DIW/EtOH	10 ~ 14(FORD CUP #4; sec)	-	1.02	17.0	-	Modified polyolefine resin	Good chemical resistance and anti-corrosion 내화학성, 방청성	Hybrid surface treatment agents for GI steel GI 금속 복합표면처리용
Hyres WA 1605	B-Cell/DIW	R ~ V	-	1.05	28.0	-	Waterborne epoxy modified acrylic resin	Good adhesion and anti-corrosion 부착성, 방청성	Waterborne surface treatment agents for aluminum 알루미늄 표면처리용(Waterborne)
Hyres WA 1900	B-Cell/DIW	Y ~ Z2	-	1.01	40.0	-	Waterborne acrylic resin	Good workability and adhesion 작업성, 부착성	Waterborne primer for plastic 플라스틱용 수성 프라이머
Hyres WA 2100	K-100/Xyl/Tol	S ~ W	max 1	0.98	52.0	-	Silicon modified acrylic resin	Good workability and heat-resistance 내열성, 작업성	Heat-resistance varnish for weaving wire 내열성 바니쉬(위빙와이어)
Hyres WE 1168	B-Cell	Z3 ~ Z5	-	0.96	60.0	30 ~ 36	Waterborne modified epoxy resin	Good hardness and adhesion 고경도, 부착성	Waterborne surface treatment agents for galvanized steel 아연도금강판 표면처리용(waterborne)
Hyres WU 1166	DIW	15 ~ 25(FORD CUP #4; sec)	-	1.01	20.0	23 ~ 33	Waterborne urethane-silica hybrid resin	Good chemical resistance and anti-corrosion 내화학성, 방청성	Hybrid surface treatment agents for galvanized steel 아연도금강판 복합표면처리용
Hyres WU 1195	DIW	10 ~ 12(FORD CUP #4; sec)	-	1.05	30.0	-	Waterborne modified urethane resin	Good chemical resistance and weatherability 내화학성, 내후성	Hybrid surface treatment agents for anti-finger print 내지문용 복합표면처리용

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Hyres® Synthetic Resins

3) DISPERSION

* Theoretical values / 이론값

Products	Co-solvent	Viscosity Gardner (25℃)	PH	Density g/㎤	Non-Volatiles (%)	Resin Type	Key features	Application
Hyres WE 4400	B-Cell	20 ~ 150 cps	7.0 ~ 9.0	1.03	26.0	Waterborne epoxy resin	Excellent adhesion and anti-corrosion 부착성, 방청성	Metal coatings 스틸 코팅
Hyres WU 1910	NEP	max 400 cps	6.5 ~ 9.5	1.03	40.0	AUD	Outstanding adhesion to a wide variety of substrates and fast dry times 다양한 기재의 접착성, 속건	Plastic, metal and wood coatings 플라스틱, 메탈, 목공용 코팅
Hyres WU 1911	NEP	max 400 cps	6.5 ~ 9.5	1.03	40.0	AUD	Outstanding adhesion to a wide variety of substrates and good UV stability 다양한 기재의 접착성, UV안정성	Plastic, metal and wood coatings 플라스틱, 메탈, 목공용 코팅
Hyres WU 4300	NMP	max 200 cps	7.5 ~ 8.5	1.06	33.0	AUD	Good alkali-resistance, adhesion and anti-corrosion 내알카리성, 접착성, 방청성	Plastic and metal coatings 플라스틱, 금속 코팅
Hyres WU 1000	-	max 200 cps	2.5 ~ 4.5	1.03	25.0	Cationic PUD	Good adhesion and workability 접착성, 작업성	Textile and leather coatings 섬유, 피혁 코팅
Hyres WU 0365	NMP	max 100 cps	7 ~ 9	1.03	30.0	PUD	Soft, elastic touch and good adhesion 소프트 질감, 접착성	Textile, leather and soft feel coatings 섬유, 피혁, 소프트필 코팅
Hyres WU 0420	NMP	max 300 cps	8 ~ 10	1.03	35.0	PUD	Good gloss and low temperature flexible 고광택, 저온유연성	Textile and leather coatings 섬유, 피혁 코팅
Hyres WU 1010	NMP	max 150 cps	7.5 ~ 8.5	1.05	32.0	PUD	High gloss and good abrasion resistance 고광택, 내마모성	Textile, leather and plastic coatings 섬유, 피혁, 플라스틱 코팅
Hyres WU 1100	-	max 300 cps	6 ~ 8.5	1.04	40.0	PUD	Soft, elastic touch and good adhesion 소프트 질감, 접착성	Textile and leather coatings 섬유, 피혁 코팅
Hyres WU 1200	-	max 1000 cps	6 ~ 8.5	1.04	53.0	PUD	Soft, elastic touch and good water resistance 소프트 질감, 내수성	Textile and leather coatings 섬유, 피혁 코팅
Hyres WU 1300	-	max 2000 cps	6 ~ 8.5	1.04	50.0	PUD	Good flexibility and workability 유연성, 작업성	Textile and leather coatings 섬유, 피혁 코팅
Hyres WU 1932	-	max 100 cps	7 ~ 9	1.03	32.0	PUD	Chipping resistance, non-yellowing and good adhesion 칩핑성, 무황변, 접착성	Plastic and metal coatings 플라스틱, 금속 코팅
Hyres WU 4000	NMP	max 500 cps	7 ~ 10	1.05	33.0	PUD	Excellent gloss and good mechanical properties 고광택, 기계적 특성	Plastic and metal coatings 플라스틱, 금속 코팅

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Hyres® Synthetic Resins

4) ACRYLIC EMULSION

* Theoretical values / 이론값

Products	*Tg(℃)	Viscosity Gardner (25℃)	PH	Density g/㎤	Non-Volatiles (%)	Resin Type	Key features	Application
Hyres WA 0110	17	max 100 cps	6.5 ~ 7.5	1.07	49.0	Acrylic emulsion	Improvement in concrete hardness 콘크리트 강도 개선	Mortar modification binder 몰탈 개질 바인더
Hyres WA 2000	10	max 800 cps	7.9 ~ 9.1	0.98	23.0	Acrylic emulsion	Core-shell type 코어-쉘 타입	Basecoat for plastic (bumper) and refinishs 플라스틱(범퍼), 마감재 중도
Hyres WA 0910	47	max 20 cps	6 ~ 8	1.04	35.0	Modified acrylic emulsion	Good alkali-resistance 내알카리성	Surface treatment agents for galvanized steel 아연도금강판 표면처리제
Hyres WA 1301	45	max 100 cps	7 ~ 8	1.04	35.0	Modified acrylic emulsion	Excellent weatherability and good alkali-resistance 내후성, 내알카리성	Surface treatment agents for galvanized steel 아연도금강판 표면처리제
Hyres WA 0070	34	700 ~ 1700 cps	8.5 ~ 10.5	1.08	51.0	Pure acrylic emulsion	Excellent gloss and weatherability, good stability 고광택, 내후성, 안정성	Main binder for exterior coatings 실외 바인더
Hyres WA 2050	10	max 50 cps	8 ~ 9	1.04	41.0	Pure acrylic emulsion	Good flexibility and adhesion 유연성, 접착성	Waterborne floor-primer 바닥재 하도
Hyres WA 2075	40	150 ~ 350 cps	8 ~ 9	1.07	50.0	Pure acrylic emulsion	Excellent weatherability and water resistance 내후성, 내수성	Surface treatment agents for galvanized steel 아연도금강판 표면처리제
Hyres WA 3030	30	20 ~ 70 cps	8 ~ 10	1.07	51.0	Pure acrylic emulsion	Excellent gloss and good adhesion 고광택, 접착성	Main binder for exterior coatings 실외 바인더
Hyres WA 3040	30	10 ~ 400 cps	8.2 ~ 9.2	1.07	51.0	Pure acrylic emulsion	High gloss 고광택	Main binder for exterior coatings 실외 바인더
Hyres WA 0058	16	150 ~ 450 cps	7.5 ~ 8.5	1.02	48.0	Styrene-acrylic emulsion	General purpose 범용	Main binder for ex/interior coating 실내외 바인더
Hyres WA 0100	49	30 ~ 70 cps	1.6 ~ 3.6	1.05	44.0	Styrene-acrylic emulsion	Good adhesion for wood 목재 접착성	Binder for flame retardant coating 난연 바인더
Hyres WA 0520	52	max 50 cps	1.7 ~ 2.7	1.05	44.0	Styrene-acrylic emulsion	Excellent chemical stability 내화학성	Surface treatment agents for silicon-steel 규소강 표면처리제
Hyres WA 0912	40	10 ~ 30 cps	7 ~ 9	1.04	45.0	Styrene-acrylic emulsion	Good pigment dispersibility 안료 분산성	Surface treatment agents for galvanized steel 아연도금강판 표면처리제
Hyres WA 2040	82	400 ~ 800 cps	7.5 ~ 8.5	0.96	44.0	Styrene-acrylic emulsion	Good water resistance and adhesion 내수성, 접착성	Waterborne primer for golf ball 골프공 프라이머
Hyres WA 5040	0	max 600 cps	7.5 ~ 8.5	1.05	54.0	Styrene-acrylic emulsion	Good flexibility and workability 유연성, 작업성	Putty for plywood 합판용 퍼티
Hyres WA 7000	28	1500 ~ 4500 cps	8.5 ~ 9.5	1.05	48.5	Styrene-acrylic emulsion	Rheology control emulsion 유동성 조절	Main binder for interior coatings 실내 바인더
Hyres WA 9003	20	40 ~ 80(KU)	5 ~ 7	1.02	49.5	Styrene-acrylic emulsion	Core-shell type 코어-쉘 타입	Main binder for interior coatings 실내 바인더
Hyres WA 9002	30	65 ~ 95(KU)	8.5 ~ 9.5	1.08	54.0	Vinyl acetate emulsion	High gloss and clarity 고광택, 투명성	Main binder for interior coatings 실내 바인더
Hyres WA 9004	30	46 ~ 66(KU)	3.7 ~ 5.7	1.06	49.0	Vinyl acetate emulsion	Good adhesion 접착성	Binder for solid type DIY paint 고상 DIY용 바인더

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Hyres® Synthetic Resins

1) AMINO

* Theoretical values / 이론값

Products	Solvent	Viscosity Gardner (25℃)	Color Gardner	Acid Value mg KOH/g	Density g/㎤	Non-Volatiles %	Alkylation alcohol	Component	Key features	Application
Hyres CA 0040	Xyl/n-BuOH	J ~ O	max 1	max 2	1.01	60.0	n-BuOH	Butylated melamine	Fast curing, flexibility 속건, 유연성	Basecoat for automotive 자동차용 하도
Hyres CA 0045	Xyl/n-BuOH	I ~ M	max 1	max 2	1.01	60.0	n-BuOH	Butylated melamine	Fast curing, flexibility 속건, 유연성	Automotive basecoats and industrial stoving enamels 자동차용 하도/공업용 스토빙에나멜
Hyres CA 1280	Xyl/n-BuOH	K ~ R	max 1	max 2	1.01	60.0	n-BuOH	Butylated melamine	Excellent compatibility, hardness, gloss retention 상용성, 경도, 광택유지율	Topclear for automotive and industrial coatings 자동차/공업용 상도
Hyres CA 2060	Xyl/n-BuOH	A ~ D	max 2	max 2	0.99	50.0	n-BuOH	Butylated melamine	Good compatibility, good hardness 상용성, 경도	Industrial stoving enamel 공업용 스토빙에나멜
Hyres CA 3333	Xyl/n-BuOH	D ~ F	max 1	max 2	1.01	57.0	n-BuOH	Butylated melamine	Flexibility, good Impact resistance 유연성, 내충격성	Industrial stoving enamel 공업용 스토빙에나멜
Hyres CA 5050	Xyl/n-BuOH	I+ ~ L	max 2	max 2	1.00	50.5	n-BuOH	Butylated melamine	Fast curing, good hardness 속건, 경도	Industrial stoving enamel 공업용 스토빙에나멜
Hyres CA 7385	MeOH/n-BuOH	T ~ W	max 2	max 2	0.98	60.0	n-BuOH	Urea-butylated melamine	Fast curing at low temperature, good adhesion 속건(저온), 부착성	Industrial stoving enamel at low temp. 공업용 스토빙에나멜(저온용)

2) POLYAMINE

* Theoretical values / 이론값

Products	Solvent	Viscosity Gardner (25℃)	Color Gardner	Amine Value	Density g/㎤	Non-Volatiles %	AHEW	Component	Key features	Application
Hyres CA 0080	MeOH/DIW	Z ~ Z3	max 6	-	1.07	48	-	Water-soluble amide	Water-soluble epoxy hardener 수용성 에폭시 경화제	Water-based epoxy emulsion 수용성 에폭시 에멀젼
Hyres CA 0314	Xyl/n-BuOH	R ~ U	max 14	155	0.96	62.0	177	Phenalkamine	Fast curing at low temperature 속건성(저온)	Epoxy hardener for marine coatings and heavy duty coatings 중방식/선박용 에폭시 경화제
Hyres CA 3104	Xyl	W ~ Y	max 10	154	0.93	70.0	250	Polyamide	Good adhesion and chemical resistance 부착성, 내화학성	Epoxy hardener for floor coatings, heavy duty coatings 바닥재/중방식용 에폭시 경화제
Hyres CA 4892	Xyl	1,000 ~ 3,000 cps	max 12	140	0.96	70.0	350	Polyamide	Pot life is adequate and cured property at room temperature is good 충분한 가사시간, 실온경화성양호	Epoxy hardener for marine coatings and heavy duty coatings 중방식/선박용 에폭시 경화제
Hyres CA 8067	Xyl/K-100/ n-BuOH	A3 ~ A	-	-	0.96	42.0	-	Amine adduct solution	Good adhesion and chemical resistance 부착성, 내화학성	Epoxy hardener for marine coatings and heavy duty coatings 중방식/선박용 에폭시 경화제

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Hyres Synthetic Resins

3) URETHANE

* Theoretical values / 이론값

Products	Solvent	Viscosity Gardner (25℃)	Color Gardner	NCO (%)	Density g/㎤	Non-Volatiles %	Component	Key features	Application
Hyres CI 0140	Et-Ac	W ~ Z1	max 1	14.3	1.17	75.0	TDI/TMP-adduct	Fast curing, hardness 속건, 경도	Urethane hardener for industrial & architecture coatings 공업/건축용 우레탄 경화제
Hyres CI 0190	K-100	Z1 ~ Z3	max 2	12	1.06	76.5	Blocked isocyanate based on HDI	Excellent flexibility, good adhesion, scratch and abrasion resistance 유연성, 부착성, 내스크래치성, 내마모성	Hardener for one component stoving polyurethane 일액형 스토빙 폴리우레탄 경화제
Hyres CI 0200	Tol/Et-Ac/ Bu-Ac	P ~ W	max 3	5~15	1.09	55.0	1K moisture curing polyurethane	Excellent gloss, fast dry 고광택, 속건	Wood top clear coatings 목공용 상도투명
Hyres CI 0220	Cell-Ac/n-BuOH	W+ ~ Y+	max 2	5	1.04	59.0	Blocked Isocyanate based on HDI	Excellent adhesion, good hardness, scratch and abrasion resistance 부착성, 경도, 내스크래치성, 내마모성	Hardener for one component stoving polyurethane 일액형 스토빙 폴리우레탄 경화제
Hyres CI 0505	Xyl/Tol/MEK/ Et-Ac	10 ~ 300 cps	max 3	42	0.98	42.0	TDI-modified resin	Good adhesion, water resistance 부착성, 내수성	Urethane primer coatings 우레탄하도
Hyres CI 0600	Xyl/Et-Ac	M ~ Q	max 3	7.0	1.07	73.0	TDI-modified resin	Fast curing, hardness 속건, 경도	Urethane hardener for wood coatings 목공용 우레탄 경화제
Hyres CI 0710	MEK/DMC	V ~ Z	max 3	7.2	1.10	84.0	TDI/PPG	Good Hardness 고경도	Flooring hardener 바닥재 경화제
Hyres CI 0750	Et-Ac/MEK	A1 ~ B	max 3	6	1.00	70.0	MDI/PPG/PolyBD	1K Asphalt adhesion 1액형, 아스팔트 접착력 우수	Asphalt primer 아스팔트프라이머
Hyres CI 0780	MEK	Z2 ~ Z4	max 2	7	1.05	84.0	TDI/PPG	Low hardness 저경도	Waterproofing base 방수재용 주제
Hyres CI 0812	-	Z2 ~ Z3	max 3	25	1.20	100.0	MDI/PPG	Good hardness, fast curing, non-solvent 고경도, 속경화, 무용제	Water pipe hardener 수도관용 경화제
Hyres CI 0820	-	Z3 ~ Z5	max 3	15.5	1.14	100.0	MDI/PPG/PTMG	Low temperature impact resistance, non-solvent 저온 충격성 우수, 무용제	Industrial molding 공업용 몰딩
Hyres CI 0875	Xyl/DMC	Z1 ~ Z4	max 2	3.16	0.97	35.0	TDI-modified resin	Good adhesion, water resistance 부착성, 내수성	Elastic waterproof urethane primer 방수제용 우레탄하도
Hyres CI 1267	PMA/Et-Ac	O ~ R	max 2	8.0	1.13	65.0	Polyester/TDI-adduct	Flexibility, toughness 유연성, 인성	Urethane hardener for marine coatings 선박용 우레탄경화제
Hyres CI 1288	Propylene carbonate	600 ~ 900cps	max 3	14.3	1.11	86.5	MDI-modified resin	Good adhesion, water resistance 부착성, 내수성	Architectural paints(waterproof) 건축용(방수)
Hyres CI 9069	PMA/Bu-Ac	U ~ X	max 2		1.08	70.0	HDI-modified resin	Electro deposition blocked isocyanate 전착 블록이소시아네이트	Electro deposition coatings 전착도장

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ADDITIVES

Hyres® Synthetic Resins

* Theoretical values / 이론값

Kind of additive	Products	Viscosity Gardner(25℃)	Acid Value mg KOH/g	Density g/㎤	Non-Volatiles %	Resin type	Key features
Adhesion promoter	Hyres FA 1300	V ~ W	80 ~ 90	1.07	53.0	Epoxy ester phosphate acid	Adhesion promoter to metals or non-ferrous 철재/비철금속 부착증진제
Dispersing vehicle	Hyres FA 5310	W ~ Z1	max 4	1.03	50.0	Modified polyester	Pigment grinding vehicle for solventborne polyester system 용제형 안료 분산증진제(폴리에스테르)
	Hyres FA 5330	X ~ Z2	max 13	1.04	58.5	Modified polyester	Pigment grinding vehicle for solventborne polyester system 용제형 안료 분산증진제(폴리에스테르)
Flow & leveling additive	Hyres FA 6202	A1 ~ B	max 3	0.97	59.0	Acrylic copolymer	Silicone free leveling and deforming agent with excellent compatibility 비실리콘계 표면평활제/소포제(상용성우수)
Defoaming additive	Hyres FA 4312	A2 ~ E	–	0.91	49.0	Acrylic copolymer	Silicone free polymeric deformer 비실리콘계 소포제

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SOLVENT ABBREVIATIONS

Tol	Toluene
Xyl	Xylene
K-100	Kocosol-100, kind of mineral spirit, Boiling point about 150~177°C
K-150	Kocosol-150, kind of mineral spirit, Boiling point about 185~211°C
HV-1	Mineral spirit
MeOH	Methanol
n-BuOH	Normal butyl alcohol
EtOH	Ethanol
IPA	Isopropyl alcohol
MEK	Methyl ethyl ketone
MIBK	Methyl isobutyl ketone
Cy-hexanone	Cyclohexanone
PMA	Propylene glycol mono methyl ether acetate
Bu-Ac	Normal butyl acetate
Et-Ac	Ethyl acetate
Cell-Ac	Cellusolve acetate
E-Cell	Ethyl cellusolve
B-Cell	Butyl cellusolve
M-Carbitol	Diethylene glycol mono methyl ether
B-Carbitol	Diethylene glycol mono buthyl ether
PM	Propylene glycol mono methyl ether
DIW	Deionized water
NMP	N-methyl-2-pyrrolidone
NEP	N-ethyl-2-pyrrolidone
DMC	Dimethyl carbonate