### Polykyd<sup>®</sup> (PT-kyd<sup>®</sup>) - alkyd resins - pure drying oil modified

Product Code	NVC (%)	Solvent	Max. acid value	Typical viscosity @ 25°C (poise)	Oil content (%)	Туре	Features/ application(s)
Long oil len	gth						
LA401	70	White Spirit	10	15-30	62	TOFA	Suitable for architectural wood coating. Exceptional flexibility for long life spend and good crack resistance for wood substrate.
LA407	70	White Spirit	10	700	60	Linoleic	Very high viscosity type for general decorative enamel and undercoat formulation. Also suitable for protective coating application.
LA410	60	White Spirit /Xylene	10	60-100	63	Linoleic	Good brushability, higher solid and fast drying performance. Suitable for General purpose high gloss enamel.
Medium oil	length						
MA301	65	Xylene	12	40	51	TOFA	Fast dry and good hardness development. Good durability and color retention. Suitable for air dry and stoving formulation. Suitable Transport and Industrial application.
MA304	55	White Spirit	12	200	51	TOFA	High viscosity type. Fast dry and good hardness development. Good durability and color retention. Suitable for air dry and stoving formulation. For Transport and stoving finishes.
MA306	55	White Spirit	12	200	53	Linoleic	Fast dry and good mechanical properties. Suitable for air dry and stoving formulation.  For general economy industrial and transport finishes.
MA307	60	White Spirit	10	600	50	Linoleic	High viscosity, fast dry and good mechanical properties. For air dry and stoving finishes. Suitable for transport refinishing, also useful in undercoat and semi-gloss enamel.

### Modified Polymer

Max.

Code	(%)	Solvent	acid value	25°C (poise)	Туре	Features/ application(s)
Polythane (P	T-thane	®) – ureth	ane mod	ified		
UA600	55	White Spirit	3	20	Linoleic	For use in floor varnishes, wood sealers and decorative paints.
UA602	100	-	5	Plastic solid	Linoleic	Good wetting properties. Suitable for oil stain formulation. Suitable for exterior wood stain application.
UA 608	55	White Spirit	3	20	Linoleic	Fast dry, excellent hardness and abrasion resistance. Suitable for floor varnishes and other wood and decorative paint.

## Polynate<sup>®</sup> (PT-nate<sup>®</sup>) - polyester resins - 2-pack isocyanate cure

Product Code	NVC (%)	Solvent	Max. acid value	Typical viscosity @ 25°C (poise)	Hydroxyl value	Hydroxyl content (%)	Туре	Features/ application(s)
PE104	65	PMA	4	170	265	8	Highly branched	Highly reactive polyester for ambient curing with aliphatic and aromatic isocyanates. Give excellent chemical and abrasion resistance.
PE108	100	-	3	8.5	250	7.6	Linear	Compatible with most acrylics, polyesters and alkyds. It can enhance the solids and improve flexibility of stoving and 2-pack coatings.
PE115	100	-	5	250	200	5	Linear	Use to enhance the solids of stoving and 2K coatings. Good flexibility, harder than PE108.
PE124	100	-	12	15	420	12.7	Linear	Grinding resin and carrier for unsaturated polyester system.

PE151	70	Xylene	4	60 66	2	Slightly branched	Excellent flexibility with good hardness. Good adhesion to many substrates including plastic materials. Suitable for topcoat formulation of appliances and architecture finishes.			
PE163	75	PMA	10	80 109	3.3	Slightly branched	Excellent abrasion and scratch performance. Good durability and flexibility. Combined with PE104 to improve solid and overall properties.			
PE164	75	Xylene	12	75 162	4.9	Slightly branched	Excellent chemical and mechanical performance. Suitable for PU wood finishes. Also, suitable for wood surface on boat and parquet flooring.			
Polycry	Polycryl® (PT-cryl®) - acrylic resins - 2-pack isocyanate cure									
Product Code	NVC (%)	Solvent	Max. acid value	Typical viscosity @ 25°C (poise)	Hydroxyl value	Hydroxyl content (%)	Features/ application(s)			
HA500	60	Xylene	10	11	90	2.7	Used in general purpose 2-pack finishes with good weatherability and chemical resistance e.g. offshore applications.			
HA501	65	Xylene	10	65	110	3.3	High solids, high build acrylic with excellent durability for protective 2-pack coatings. Good adhesion to metals, plastics and composites.			
HA502	60	Butyl Acetate	8	45	96	2.9	For good, all-round, high-quality performance 2K coatings. Excellent weatherability and stain resistance. Suitable for plastic substrates.			
HA503	55	Xylene	10	25	56	1.7	For fast drying economical industrial coatings with good adhesion to galvanized steel.			
HA508	60	Xylene	10	70	66	2	For use in refinish coating, excellent gloss, DOI and drying properties. Good for early polishing in vehicle refinish coating.			
HA510	60	Xylene	10	55	33	1	Low hydroxyl, fast dry, early hardness development, good adhesion to metal and plastics. Suitable for maintenance protective work.			

HA527	52	Butyl Acetate	10	50	66	2	Fast solvent release and good through dry time. Good stack-ability, long pot life. Good mar, chemical and stain resistant. Good light fastness and good compatibility with CAB, others polyol and polyisocyanate.
HA528	70	Xylene	12	230	100	3	For auto refinishing used. Good chemical and mechanical properties. Fast dry and early hardness development.
НА539	55	Butyl Acetate	10	55	49.5	1.5	Fast dry and good durability. Good compatibility with CAB. Excellent adhesion on many substrates.
HA582	65	Xylene	12	40	89.1	2.7	For general purpose protective coating used. Good chemical and stain resistant. Good mechanical properties and out durability.  Good compatibility with universal pigment paste usage.
НА592	60	Xylene	10	30	89	2.7	General purpose protective coating formulation. Good chemical resistant and good outdoor durability. Fast dry and early hardness development.
HA5102	55	Xylene/ Butyl acetate	10	33	40	1.2	Good durability, hardness, scratch and dirk pick up resistant. Suitable for general protective and road line application.
Polycry	PI® (PT-	eryl®) - h	igh soli	ds acrylic r	esins - 2	2-pack is	ocyanate cure
Product Code	NVC (%)	Solvent	Max. acid value	Typical viscosity @ 25°C (poise)	Hydroxyl value	Hydroxyl content (%)	Features/ application(s)
HA518	75	Butyl Acetate	10	70	105	3.2	Enables VOC compliant coatings(<420g/l) with very good drying and hardening rates. High flexibility and impact resistance.
HA585	75	Butyl Acetate/ PMA	10	155	135	4.1	High solid and fast dry performance. Good outdoor durability. Excellent mechanical and chemical properties. Excellent flow and high gloss performance.

## Polycryl® (PT-cryl®) – waterbased acrylic resins

Product Code	NVC (%)	Solvent	Max. acid value	Typical viscosity @ 25°C (poise)	Hydroxyl value	Hydroxyl content (%)	Features/ application(s)
WA506	50	Butyl Glycol/ N-butanol/ water	10	20	-	-	Water base force dry coating. Suitable for 1k primer for steel substrate.
WA571	50	Butyl Glycol/ N-Butanol	50	25	-	-	Water base force dry coating. Good compatibility with many water base dispersion, emulsion and water reducible resin. Suitable as grinding resin for water base tinter formulation usage.
WA587	50	Methoxy propanol	35	80	-	-	Non amine neutralized. Can withstand solvent coat including 2K or epoxy topcoat. Only for intermediate coating and primer coat for old paint film
WA5108	50	Methoxy Propanol	35	80	-	-	Non amine neutralized, water soluble acrylic resin. Good solvent resistant. Suitable for water-based binder and basecoat formulation.
WA5109	50	Butyl Glycol	50	25	-	-	Water reducible air dry application. Suitable for interior topcoat metal formulation. Suitable for water base painting colour paste formulation.
WA5113	50	Water/Butyl glycol	35	80	-	-	Amine neutralized, water soluble acrylic resin with co-solvent content. Good solvent resistant. Suitable for water-based binder and basecoat formulation.

Polycryl® (PT-cryl®) - acrylic resins - thermoplastic

Product Code	NVC (%)	Solvent	Max. acid value	Typical viscosity @ 25°C (poise)	Features/ application(s)
TA504	55	Solvesso 100	10	120	Acrylic co-polymer for general purpose topcoat and sealer. Fast drying and solvent release.
TA540	70	Xylene / PMA	10	40	Acrylic co-polymer with outstanding pigment wetting and compatibility, fast solvent release. Use for universal grinding resin for tinter.
TA542	55	Butyl Acetate	10	55	Fast dry, durability and non yellowing properties. Suitable for concrete, wood and metal topcoat. Co-binder for Polygel GA807 for non leafing aluminium brush and roller formulation use.
TA544	40	Solvesso 100	10	15	Excellent drying and durability acrylic co-polymer. Used for general metal and plastic coating and concrete coating.
TA546	50	Solvesso 100 / Xylene	10	250	Thermoplastic acrylic co-polymer for roof protection coatings. Suitable for floor vanishes formulation.
TA553	60	Xylene	10	70	Co-binder for GA807 in brush and roller application formulation for non-leafing aluminium formulation. 1K application in auto-refinishing clear and color coat application.

TA556	55	Xylene/ Solvesso 100/ White spirit	10	55	Fast dry, good hardness and good adhesion to concrete and wood substrate. Suitable for sealer or primer formulation with aliphatic hydrocarbon.
TA572	45	Solvesso 100	10	60	Excellent durability, good brushability and early hardness development. Suitable for exterior and interior concrete topcoat formulation.
TA578	30	Butyl Acetate	10	10	Thermoplastic acrylic for plastic coating with good chemical resistance and solvent resistant.
TA581	40	Toluene	10	25	Fast dry and early hardness development with good abrasion resistance.  Excellent solvent and chemical resistance. Suitable for industrial metal, wood and plastic formulation.
TA599	55	Solvesso 100	15	50	Excellent adhesion, hardness and fast dry. Suitable for primer formulation direct on galvanized, aluminium and steel substrate.
TA5101	55	Solvesso 100	25	55	Excellent adhesion to many substrates including galvanized metal. Suitable for top coating and primer formulation for 1K system.
TA5110	55	White Spirit	12	150	Good mechanical and durability performance. Good adhesion to concrete and metal substrate. Suitable for Industrial and decorative topcoat and primer application. Suitable for white spirit dilution formulation.

# Product NVC Solvent Max. Typical viscosity @ Appearance

Product Code	NVC (%)	Solvent	Max. acid value	Typical viscosity @ 25°C (ICI CP, poise)	Appearance	Oil Content (%)	Туре	Features/ application(s)
GA800	55	White spirit	10	5	Soft gel	65	Linoleic	Wood stains and wood filler for good anti settling performance.
GA826	40	White spirit	10	3	Strong gel	64	Linoleic	Anticorrosive primers, decorative & building paints thick layer wood glazing. Suitable for wood filler formulation.
GA813	60	Xylene	10	-	Clear Thixotropic gel	39	Special fatty acid	Suitable for anticorrosive primers, decorative enamel as well as thick layer wood glazing. It also used to formulate texture coating. Also suitable for formulating the wiping filler. Good compatibility with short oil system.
GA821	60	Xylene	10	-	Clear Thixotropic gel	39	Special fatty acid	Ease dispersibility which suitable for anticorrosive primers, decorative enamel as well as thick layer wood glazing. It also used to formulate texture coating. Also suitable for formulating the wiping filler. Good compatibility with short oil system.

R	R				
<b>Polygel</b> ®	(PT-gel)	-acrylic	thixoti	onic r	esins
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Product Code	NVC (%)	Solvent	Max. acid value	Appearance	Туре	Features/ application(s)
WGA824	30	Butyl glycol	10	Milky white	Polyester copolymer	Good anti setting properties for pigmented in emulsion formulation. Good in metallic orientation system for water-based metallic basecoat combined with suitable resin. Can be applied in stoving and force dry system.
GA828	50	Xylene/ PMA/ Butyl acetate	10	Milky white	SCA Acrylic copolymer	Good compatibility with many resins system including epoxy resin.  Excellent anti sag and anti-settling performance.  Good metallic orientation. Suitable for stoving and air-dry basecoat formulation.
GA802 X35	35	Xylene	10	Clear	Acrylic	Good anti settling property. Good compatibility and suitable for clear coat system especially for vertical application to achieve high build property. The strong thixotropy index has make GA802 also suitable to be used in high polar system such as artificial marble where acrylic monomers are the main binder system. GA802 mixture pump able and flow able during manufacturing process.
GA807 BP35	35	Butyl Acetate / PMA	10	Translucent	Acrylic	Excellent solvent release and durability used for metallic orientation control without wax dispersion and also for wet on wet system. Suitable to be used in stoving basecoat with combination of polyester or acrylic melamine system. Good vertical spray and hold out of metallic basecoat.
GA808 X30	30	Xylene	15	Clear	Acrylic	Good anti settling property. Good compatibility and suitable for acrylic PU clear coat system especially for vertical application to achieve high build property. Suitable for stoving system. Brush or roller application for non leafing aluminium formulation.
GA 810 B30	30	Butyl Acetate	15	Milky White	Acrylic	Ease dispersibility type, excellent solvent release and durability used for metallic orientation control without wax dispersion and also for wet on wet system. Also, suitable as sole resin for binder formulation in refinishing.

## Polyadd<sup>®</sup> (PT-add<sup>®</sup>) – Polymer Addictive

#### Polyadd® (PT-add®) – Dispersing addictive

J	, 1					
Product Code	Active ingredient (%)	Solvent	Max. acid value	Amine value	Туре	Features/ application(s)
AD1	70	Xylene	5	80-100	Co-polymer	Very strong pigment wetting for inorganic and carbon black. Reduce dispersing time, improve gloss and color strength.
AD12	100	-	15	80-100	Co-polymer	Very strong pigment wetting for inorganic and carbon black. Reduce dispersing time, improve gloss and color strength.
AD30	100	-	15	70-100	Polyacrylate	Highly efficient pigment wetting additive. Broad compatibility and recommended for direct grinding. Suitable for pigment paste formulation usage.
WAD32	98	-	5-15	15-25	Copolymer	Multi-purpose pigment wetting additive. Wide range of compatibility with many types of coating resin. Suitable for solvent and water-based pigment paste formulation usage.
AD34	50	Xylene/ Methoxy propyl acetate	50	-	Copolymer	Very strong pigment wetting for TiO <sub>2</sub> and inorganic extender. Reduce dispersing time, improve gloss and color strength.

AD35 Methoxy 10 30-100 Polyacrylate with many types of coating resin. Suitable for pigment paste formulation usage.

### Polyadd® (PT-add®) – Defoamer addictive

Product Code	Active ingredient	Refractive index	Flash point (°C)	Density @25°C	Туре	Features/ application(s)
WDF5	Alkyl benzene	1.495	40	0.88	Silicone	Excellent defoaming performance in water reducible, dispersion and emulsion formulation. Suitable in pigment paste formulation.
WDF50	-	1.451	-	0.98	Non silicone	Strong defoaming for high solid water base and emulsion system.
WDF54	-	1.336	-	0.95	Non silicone	Excellent defoaming property. Suitable for general defoaming purpose on all emulsion and dispersion system.
Product Code	Active ingredient	Solvent	Flash point (°C)	Density @25°C	Туре	Features/ application(s)
Polyadd (PT-add ) – Wetting and levelling addictive						
AL 21	50	Alkyl benzene/ Butyl acetate	47	0.94	Polyacrylate	Good levelling performance and suitable for all gloss level. Can be used in coil and can formulation. Recoatibility and no foam stabilization effect.
Polyadd <sup>®</sup> (PT-add <sup>®</sup> ) – Miscellaneous addictive						
THX 6	6	Xylene/ Butyl acetate/ butanol	27	0.86	EVA copolymer dispersion	Improve orientation of metallic pigment, enhance flip flop effect. Improve in can anti settling performance.