



Bayhydrol® NeoCryl®
Bayhydrol®

Unleashing Superior Protection for Factory-Applied Finishes
High-Performance, Two-Component Waterborne Systems



Systems utilizing these resins offer faster drying, which boosts production efficiencies. With high film hardness and excellent chemical resistance, these coatings provide lasting durability.

Building Products

System 1 Bayhydrol® A 2695 / Bayhydrol® A 2846 / Bayhydur® 2547

- Easy to matte
- **High film hardness**
- **Excellent chemical resistance**
- Adhesion on PVC, fiberglass and aluminum

System 2 NeoCryl® XK-555 / NeoCryl® A-1234* / Bayhydur® 2547

- Easy to matte
- **Fast block resistance**
- Low Polyisocyanate (PIC) demand as formulation
- Adhesion on PVC, fiberglass and aluminum

	2K-WB PU Commercial Product	System 1	System 2
VOC	< 100 g/L	< 100 g/L	< 100 g/L
Mix Ratio (Polyol : PIC, approx. volume)	4 : 1	5 : 1	8 : 1
Early Block Resistance	Very poor	Fair	Excellent
Tack-Free Time After Initial Bake (140°F for 15 min.)	> 1 hour	~ 5 min.	< 1 min.
60° Gloss	Approx. 20	Approx. 20	Approx. 20
Pendulum Hardness (sec, König)	200	190	150
Pencil Gouge Hardness (on PVC)	> 2H	> 2H	> 2H
Chemical Resistance (AAMA 615-20)	Pass	Pass	Pass

*NeoCryl® A-1234 is a non-OH functional, self-crosslinking acrylic copolymer emulsion offering fast blocking resistance, high transparency, and non-yellowing performance.

Office furniture

System 3 NeoCryl® XK-555 / Bayhydur® ultra 2655 / Bayhydur® ultra 401-70

- High gloss
- High film hardness
- Excellent chemical and stain resistance

	System 3
60° gloss	93
Pendulum hardness (sec, König)	222
Dry hard time	70 min.
Chemical resistance	
Coffee, 24 hrs.	No change
Mustard, 1 hr.	No change
IPA, 15 min.	No change
28% Ammonium hydroxide, 15 min.	No change
33% Sulfuric acid, 15 min.	No change
Bleach, 24 hrs.	No change



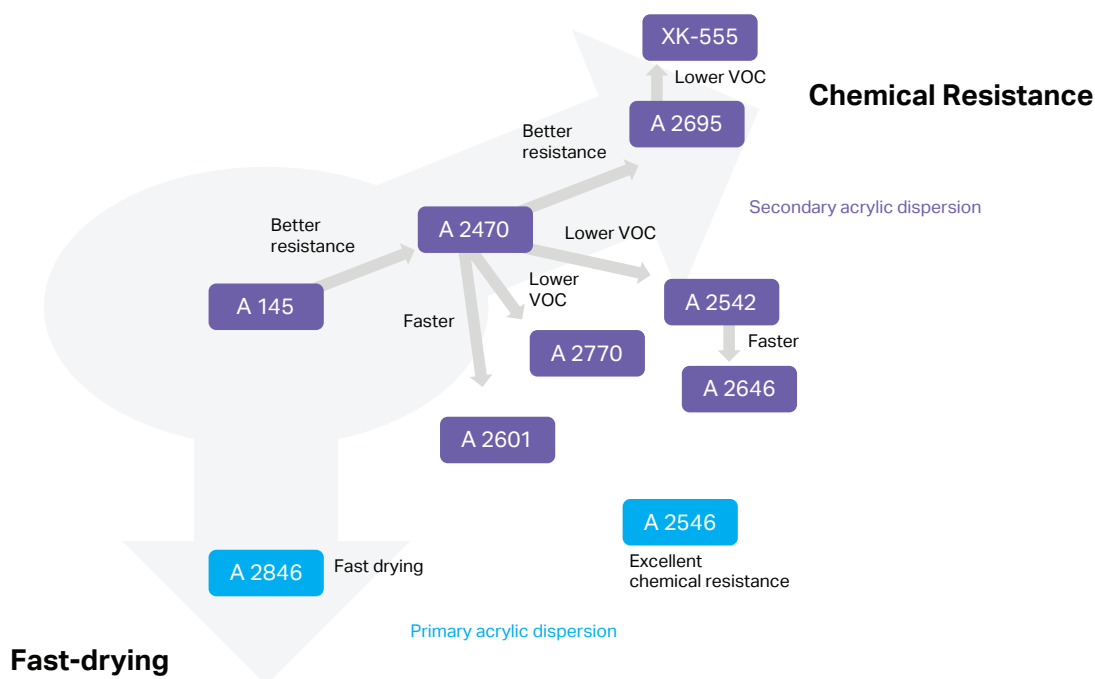
Our innovative raw materials empower formulators to create high-performance 2K waterborne polyurethane coatings tailored for factory-applied systems.

Enhance product appearance and durability with the following value-driven properties:



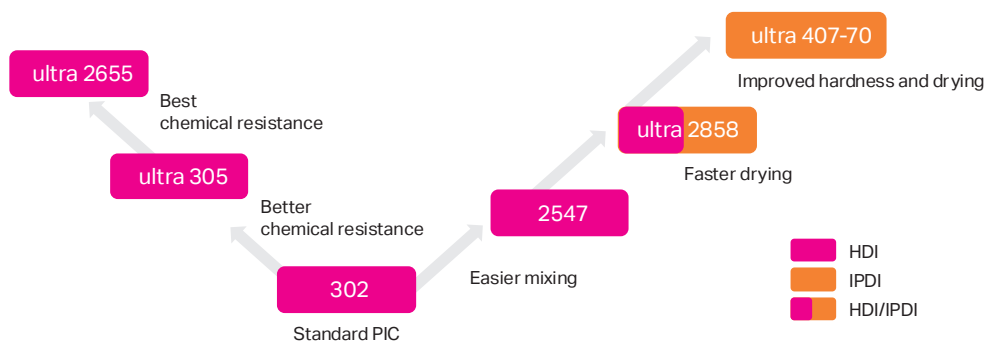
OH - Functional Polyacrylic Dispersions for 2K WB PU

Bayhydrol® A and NeoCryl®



Aliphatic Hydrophilic Polyisocyanates for 2K WB PU

Bayhydur® ultra/ Bayhydur®



OH – Functional Dispersions for 2K WB PU

Product	Type	Neutralizing Agent	Solids %	Equiv. Wt.	Tg °C	Co-solvent %	Features/Benefits
Bayhydrol® A 145	PAC	DMEA	45	1144	36	8	Films are hard and flexible with good single-coat adhesion and good resistance to solvents and water
Bayhydrol® A 2542	PAC	TEA	50	894	17	1	Hard, very high gloss, good chemical resistance, outstanding water resistance
Bayhydrol® A 2646	PAC	TEA	50	894	15	1	Outstanding mechanical and chemical resistance
Bayhydrol® A 2470	PAC	DMEA / TEA	45	968	59	8	Yields high-gloss topcoats which are hard and flexible with outstanding resistance to solvents and water, and have excellent weatherability, good pigment wetting properties and high shear stability
Bayhydrol® A 2770	PAC	DMEA	45	968	47	3.6	Hard and flexible with outstanding resistance to solvents and water, excellent weatherability, good pigment wetting properties and high shear stability
Bayhydrol® A 2601	PAC	DMEA/ TEA	45	968	50	8	Film is hard and tough yet flexible; exhibits high gloss, good filling power, good weather and light stability, rapid drying, good resistance to solvents and gasoline
Bayhydrol® A 2695	PAC	DMEA	41	829	53	7.6	Lightfastness, glossy, hard and tough yet flexible, good weather stability and superior chemical resistance
NeoCryl® XK-555	PAC	—	40	850	26	0	Provides very high gloss and clarity combined with high chemical resistance and cosolvent free
Bayhydrol® A 2846	PAC	NH3	40	2833	65	0	Good chemical resistance, high film hardness, early sandability and fast blocking resistance development
Bayhydrol® A2546	PAC	NH3	41	863	64	0	Outstanding mechanical and chemical resistance, especially good when hot tire resistance is required

Aliphatic Hydrophilic Polyisocyanates for 2K WB PU

Product	Chemical Base	Solids %	Solvent	NCO Wt. %	Viscosity [mPa*s]	Features/Benefits
Bayhydur® 302	HDI	100	—	17.3	2300	Versatile and economical, good chemical resistance, outstanding stability and gloss retention
Bayhydur® ultra 305	HDI	100	—	16.2	6500	Good dispersibility, weather-stable, non-yellowing, increased flexibility
Bayhydur® 2547	HDI	100	—	22.5	650	Good gloss and chemical resistance, non-yellowing
Bayhydur® ultra 2655	HDI	100	—	20.8	3500	Easy mixing, outstanding chemical resistance, fast drying and high ultimate hardness
Bayhydur® ultra 2858	HDI/IPDI	70	PGDA	13.3	500	Easily disperses even at low shear rates. Also suitable for manual mixing if required
Bayhydur® ultra 401-70 MPA/X	IPDI	70	MPA/X (1:1)	9.4	600	Weather-stable, non-yellowing, improved hardness, good adhesion and drying properties

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