

# CYTEC



## Additives & Specialty Products

Solving Paint Problems  
By Using Additives  
Asia Pacific

Additives grade	w/b s/b	Acrylics, thermopl.	Acrylics, stoving	Acrylics, thermopl. w/b	Acrylics, stoving, w/b	Alkyds air-drying	Alkyd/Amino systems	Alkyds air-drying, w/b	Alkyd/Amino systems, w/b	Dispersion paints	Dispersion lacquers	2K-Epoxy systems	Epoxy esters, stoving	Epoxy esters air-drying	2K-Epoxy systems, w/b	PE/Amino systems, oil-free	NC combi systems	Phenolic systems	Polyurethane systems	Powder coatings	Acid curing systems	Hybrid systems	UV, s/b and 100%	UV, w/b	2K-Polyurethanes, w/b
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## Flow and Leveling / Substrate Wetting

Silicone-free																										
ADDITOL™ XL 425*	S																								○	
ADDITOL XL 480	S		○			○	○						○	○		○									○	
ADDITOL XL 490	S	○	○			○	○					○	○	○		○					○	○			○	
ADDITOL XL 490/50BAC	S	○	○			○	○					○	○	○		○					○	○			○	
MODAFLOW™ Resin*	S	○	○			○	○					○	○	○		○					○	○			○	
MODAFLOW 2100	S	○	○			○	○					○	○	○		○					○	○			○	
MODAFLOW 9200	S		○				○					○	○			○								○		○
ADDITOL VXW 4971	W				○				○																	○
ADDITOL VXW 6502	W			○	○				○	○													○			○
ADDITOL XW 390	W				○				○	○						○										○
ADDITOL XW 395	W								○	○						○										○
ADDITOL XW 6508	W				○				○	○																○
MODAFLOW AQ 3025	W			○	○				○	○	○														○	

Silicone-modified																										
ADDITOL XL 122N	S	○	○			○	○						○			○	○		○		○					
ADDITOL XL 6526	S	○	○			○	○					○	○	○		○	○	○	○		○			○		
ADDITOL VXL 4930	SW	○	○	○	○	○	○	○		○	○	○	○	○	○	○	○	○	○		○	○	○	○	○	○
ADDITOL XL 123 N	SW	○	○	○	○	○	○	○		○	○	○	○	○	○	○	○		○		○	○	○	○	○	○
ADDITOL VXW 6503	W			○	○				○	○	○				○								○			○

## Pigment Wetting

ADDITOL VXL 6212 N	S	○	○				○									○	○		○							
ADDITOL VXL 6237 N	S	○	○				○	○				○	○	○		○			○		○					
ADDITOL XL 255 N	S	○	○				○	○				○	○	○		○			○							
ADDITOL XL 260 N	S	○	○				○									○	○		○							
ADDITOL XL 6514/80	S	○					○							○			○		○							○
ADDITOL XL 6521	S	○	○				○									○	○		○							
ADDITOL XL 6522	S	○	○				○									○	○		○							
ADDITOL XL 203	SW	○	○	○	○	○		○	○			○	○	○		○	○	○	○		○	○		○	○	○
ADDITOL XL 204	SW	○	○	○	○	○	○	○	○			○	○	○		○	○					○			○	○
ADDITOL XL 250	SW	○	○	○	○	○	○	○				○	○	○		○	○								○	○
ADDITOL VXW 6200	W			○						○	○												○			
ADDITOL VXW 6374	W			○	○				○	○					○								○			○
ADDITOL XW 330	W									○																

## Pigment Concentrates / Pastes

ADDITOL XW 6535	SW					○			○	○					○								○			○
ADDITOL VXW 6208	W			○	○			○	○	○						○							○			○
ADDITOL VXW 6394	W			○	○			○	○	○						○							○			○
ADDITOL XW 6529	W			○	○			○	○							○							○			○

## Others

ADDITOL VXL 5918	S																									
ADDITOL VXL 5930	S																									
ADDITOL XL 102	S																									
SANTOSOL™ DME-1*	S	○	○			○	○					○	○	○		○	○	○	○		○					
ADDITOL VXL 1105	SW	○		○		○					○					○							○			○
ADDITOL VXL 4920	SW	○	○	○	○	○	○	○		○			○	○		○	○	○	○		○	○	○	○	○	○
ADDITOL XL 6505	SW	○	○	○	○	○	○	○		○			○	○		○	○	○	○		○	○	○	○	○	○
CYLINK™ 2000*	SW		○																							

\* ADDITOL™ additives

\* CYLINK™ crosslinkers

\* MODAFLOW™ flow modifiers

\* SANTOSOL™ dimethyl esters



Additive grade	w/b s/b	% Active matter	Characteristics	Dosage	Description
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## Flow and Leveling / Substrate Wetting

Silicone-free					
ADDITOL XL 425	S	80%	Acrylic co-polymer	0.2 - 1.5% total	Air release agent for unsaturated polyesters and UV-curable systems
ADDITOL XL 480	S	70%	Modified acrylic co-polymer; low molecular weight; FDA-compliant	0.1 - 0.5% total	Reduces surface defects; good compatibility; for car-refinish applications
ADDITOL XL 490	S	100%	Modified acrylic co-polymer	0.1 - 2.0% binder	Enhancement of flow and leveling, reduction of surface defects
ADDITOL XL 490/50BAC	S	50%	Modified acrylic co-polymer	0.1 - 0.5% total	Enhancement of flow and leveling, reduction of surface defects
MODAFLOW Resin	S	100%	Acrylic co-polymer; high molecular weight; FDA-compliant	0.1 - 1.0% total	Highly effective leveling agent; good wetting behaviour, degassing properties
MODAFLOW 2100	S	100%	Acrylic co-polymer; low molecular weight; FDA-compliant	0.1 - 1.0% total	Highly effective; good compatibility; short incorporation time and fast mode of action
MODAFLOW 9200	S	100%	Modified acrylic co-polymer; low molecular weight; crosslinkable	0.1 - 0.5% total	Reduces surface defects; excellent compatibility; for high-end applications with excellent gloss
ADDITOL VXW 4971	W	50%	Acrylic co-polymer; neutralized by amine	0.2 - 1.0% binder	Enhances flow and leveling, prevents surface defects; crosslinkable
ADDITOL VXW 6502	W	65%	Neutralized acrylic co-polymer	0.1 - 1.0% total	Enhancement of flow and leveling
ADDITOL XW 390	W	50%	Acrylic co-polymer; neutralized by amine	0.1 - 1.0% binder	Excellent substrate wetting; prevents surface defects
ADDITOL XW 395	W	58%	Acrylic co-polymer; neutralized by amine; silicone-free; FDA-compliant	0.2 - 1.0% binder	Good wetting; prevents cratering and pin holes; effective against oil contaminations
ADDITOL XW 6508	W	44%	Acrylic co-polymer; neutralized by amine	1.0 - 1.0% on total formulation	Enhances flow & leveling, prevents surface defects, crosslinkable
MODAFLOW AQ 3025	W	25%	Acrylic co-polymer; neutralized by amine; silicone-free	1.0 - 2.0% total	Optimizes flow and gloss; enhances degassing; facilitates pigment wetting
Silicone-modified					
ADDITOL XL 122 N	S	45%	Modified silicone	0.05 - 0.3% total	Enhances flow, prevents pigment floating
ADDITOL XL 6526	S	100%	Silicone acrylic hybrid	0.05 - 0.15% total	High efficiency; exceptional DOI; low viscosity for high solids and UV curable systems
ADDITOL VXL 4930	SW	40%	Polyether-modified silicone	0.1 - 1.0% total	Highly effective; good spray mist absorption; prevents orange peel; no foam stabilization
ADDITOL XL 123 N	SW	50%	Modified silicone	0.1 - 0.3% total	Excellent slip and scratch resistance; degassing; thermostable up to 400°C
ADDITOL VXW 6503	W	50%	Silicone tenside	0.1 - 1.0% total	Excellent substrate wetting; no foam stabilization; good recoatability

## Enhancement of Slip

ADDITOL VXL 4930

ADDITOL XL 122 N

ADDITOL XL 123 N

## Pigment Wetting

ADDITOL VXL 6212 N	S	30%	Urethane modified acrylic co-polymer; cationic; high molecular	3-10% inorg. pigment 10 - 50% org.	Similar to XL260N, but improved effectiveness in acylic systems
ADDITOL VXL 6237 N	S	30%	Wetting/dispersing agent; cationic; high molecular, low temperature resistance	3-10% inorg. pigment 10 - 50% org.	For difficult wettable pigments as well as for pigment concentrates/pastes
ADDITOL XL 255 N	S	55%	Modified alkyd resin; neutralized	0.2 - 2.0% inorg. 1.0 - 5.0% org.	Reduces dispersing time; enhances flow, gloss and color strength
ADDITOL XL 260 N	S	30%	Urethane modified acrylic co-polymer; non-ionic; high molecular, low temperature resistance	3-15% inorg. pigment 15 - 60% org.	Highly effective for difficult wettable inorg. and org. pigments
ADDITOL XL 6514/80	S	80%	A universal wetting/dispersing agent based on a salt of a basic aminoamide with an acidic polyester	0.2 - 1.0% inorg. pigment, 1.0-5.0% org	Reduces dispersing time & improves wetting of both org. & inorg. pigments, improves gloss & leveling, prevents floating & sedimentation efficiently
ADDITOL XL 6521	S	60%	Wetting/dispersing agent; high molecular, cationic for carbon black and organic pigments	50 - 80% carbon black 10-50% org. pigments	For difficult wettable carbon black and organic pigments as well as for pigment concentrates/pastes
ADDITOL XL 6522	S	60%	Wetting/dispersing agent; high molecular, cationic for carbon black and organic pigments	50 - 80% carbon black 10-50% org. pigments	Similar to ADDITOL XL6521, but improved low temperature store stability
ADDITOL XL 203	SW	40%	Silicone containing polymer; cationic; high molecular	0.5 - 5.0% pigment	Prevents floating; for inorg. and org. pigments; not compatible with acidic materials!
ADDITOL XL 204	SW	55%	Silicone containing phosphoric acid ester; anionic	0.5 - 6.0% pigment	Prevents floating and Bénard cells; reduces dispersing time
ADDITOL XL 250	SW	55%	Phosphoric acid ester, neutralized by amine; anionic; low molecular	0.5 - 5.0% pigment/ extender	Reduces dispersing time; enhances flow, gloss and color strength



Additive grade	w/lb s/lb	% Active matter	Characteristics	Dosage	Description
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## Combination Driers / Anti-skinning Agents / Adhesion Promoters

Anti-skinning Agents					
ADDITOL XL 109/50LG	SW	50%	Phenolic resin based anti-skinning agent	0.1 - 2.0% binder	To reduce oxidative drying force; thick layer systems; also in-can preservation
ADDITOL XL 197	SW	45%	Phenolic resin based anti-skinning agent; oxime-modified	0.3 - 1.5% binder	To reduce oxidative drying force; thick layer systems; also in-can preservation
ADDITOL XL 297	SW	100%	Anti-skinning agent; special oxime	0.2 - 2.0% binder	Mainly in-can preservation; no influence on drying characteristics

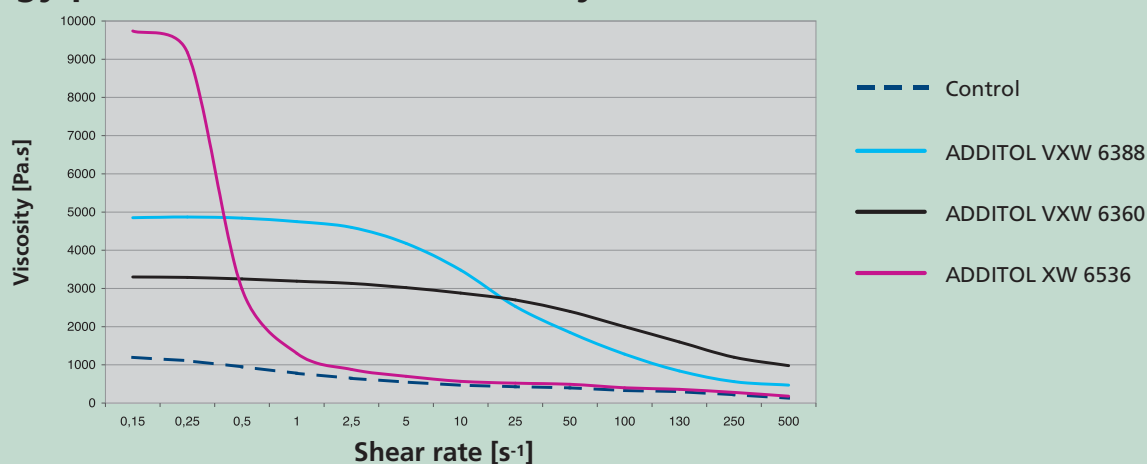
Adhesion Promoters					
ADDITOL VXL 4950	S	43%	Halogenated flash primer		Flash primer for plastics
ADDITOL XL 180	S	98%	Phosphoric acid compound	0.1 - 1.0% total	Enhances intercoat adhesion
ADDITOL XL 186	S	90%	Phosphoric acid compound	0.3 - 1.0% total	Enhancement of adhesion, especially intercoat adhesion

## Rheology Modifiers / Catalysts

Rheology Modifiers					
ADDITOL VXW 6387	SW	60%	Special fatty acids; amine neutralized; silicone-free	0.1 - 5.0% pig.	Prevents pigment sedimentation; reduces sagging; improves storage stability
ADDITOL XL 270	SW	55%	Modified silicone; amine neutralized	0.1 - 2.0% pigment	Suitable for high gloss system; prevents floating sedimentation
ADDITOL XL 280	SW	36%	Specially modified montmorillonite clay	5.0 - 10.0% pigment	Prevents settling of pigments/extenders; reduces sagging
ADDITOL VXW 6360	W	30%	Polyurethane thickener	0.1 - 3.0% total	Modifies rheology and flow; easy to incorporate
ADDITOL VXW 6388	W	35%	Polyurethane thickener	0.1 - 3.0% total	Highly effective at low and medium shear-stress; prevents sedimentation and sagging
ADDITOL XW 6536	W	37%	Organic modified Clay	0.2 - 0.8% total	Improves low sheet viscosity in 2K wb epoxy especially for airless application

Catalysts					
CYCAT™ XK 406 N*	S	9%	Phosphoric acid based catalyst	2.0 - 5.0% binder	Accelerates curing of phenolic and phenolic/epoxy systems
CYCAT 296-9	S	50%	Phosphoric acid based catalyst	2.0 - 2.5% binder	Especially for low temperature stoving applications in general industry and OEM
CYCAT 4040	S	40%	Unblocked para-toluene sulfonic acid catalyst	0.5 - 2.5% binder	Accelerates curing of highly alkylated amino resins, benzoguanamine and urea formaldehyde
CYCAT VXK 6364	SW	50%	pTSA neutralized by amine	1 - 7% melamine resin	Reduces stoving temperature/time
CYCAT VXK 6395	SW	25%	Amine blocked sulfonic acid	0.4 - 8.0% total	Especially for low temperature stoving applications in general industry and OEM
CYCAT 500	SW	40%	Unblocked DNNSA	1.0 - 3.0% binder	Accelerates curing of carboxyl, hydroxyl & amide functional groups with alkylated melamine formaldehyde & urea formaldehyde crosslinking agents
CYCAT 600	SW	70%	Unblocked DDBSA	0.5 - 1.0% binder	Accelerates curing of highly alkylated amino resins, benzoguanamine and urea formaldehyde
CYCAT 4045	SW	20%	Amine blocked para-toluene sulfonic acid catalyst	1.0 - 4.0% binder	Accelerates curing of highly alkylated amino resins, provide excellent stability in high solids and waterborne systems

## Rheology profile of a water based acrylic clear coat



## Others

ADDITOL VXL 5918	S	10%	Inhibitor solution	0.1 - 1.0% total	Prolongs the processing time (potlife) of UP paints, putties and spraying fillers
ADDITOL VXL 5930	S	35%	Formaldehyde scavenger	4.0 - 8.0% total	Reduction of formaldehyde emission in acid curing systems
ADDITOL XL 102	S	27%	Anion active blend of surfactants	2.0 - 3.0% total	Improves efficiency of paint removers based on waxes/paraffines
SANTOSOL DME-1	S	-	Dimethyl esters	-	Slow evaporation with good solvency, flow and anti-pinhole
ADDITOL VXL 1105	SW	50%	Salt of a complex amino carbonic acid	2.0 - 5.0% total	For the formulation of strippable coatings; free of organically bound chlorine
ADDITOL VXL 4920	SW	50%	Quaternary ammonium compound	0.1 - 0.8% total	Increases conductivity of electrostatically applied lacquers
ADDITOL XL 6505	SW	50%	Quaternary ammonium compound	0.1 - 8.0% total	Increases conductivity of electrostatically applied lacquers
CYLINK 2000	SW	-	Unique formaldehyde-free, trifunctional crosslinking agent with reactive carbamate functionality	1.0 - 5.0% binder	Crosslinks with hydroxy- & epoxy containing polymers to form highly durable, acid resistant coatings with good balance of hardness & flexibility

\* CYCAT™ catalysts

## Main Products and Their Application Fields

Categories		Slip and Leveling Agents	Wetting and Dispersing Agents		Defoamers and Air Release	Catalysts / Driers	Anti-Skinning Agents	Adhesion	Rheology Modifiers	Conductiv.
OEM	S	M Resin M.2100 M.9200 XL 480 XL 6526	VXL 6212 N VXL 6237 VXL 6237 N XL 204 XL 250 XL 260 N	XL 6251 XL 6514/80 XL 6522	VXL 4951 VXL 6501	CYCAT VXK 6395 CYCAT 500 CYCAT 4045	-	VXL 4950 XL 180	XL 270	XL 6505
	W	M.AQ 3025 VXW 6503 XW 395	VXW 6208 XL 204 XL 250	XW 6508 XW 6529	CYCAT VXK 6395 CYCAT 500 CYCAT 4045	-	-	VXW 6387 XL 270	-	XL 6505
Car Refinish	S	M Resin M.2100 M.9200 VXL 4930 XL 123 N XL 480 XL 6526	VXL 6212 N VXL 6237 VXL 6237 N XL 203 XL 204 XL 250 XL 6514/80	XL 6521 XL 6522	VXL 4951 VXL 6501	-	XL 297	VXL 4950 XL 180	XL 270	-
	W	M.AQ 3025 VXL 4930 VXW 6503 XW 395	VXW 6208 XL 204 XL 250 XW 6529 XW 6508		VXW 4926 VXW 4973 VXW 5907 VXW 6386 VXW 6500	-	-	-	VXW 6360 VXW 6387 VXW 6388 XL 270	-
General Industry (Stoving Appl.)	S	M Resin M.2100 VXL 4930 XL 122 N XL 123 N XL 480 XL 6526	VXL 6212 N VXL 6237 VXL 6237 N XL 203 XL 204 XL 250 XL 260 N XL 6514/80	XL 6521 XL 6522	VXL 4951 VXL 6501	CYCAT VXK 6395 CYCAT XK 406 N CYCAT 500 CYCAT 600 CYCAT 4040 CYCAT 4045 CYCAT 296-9	XL 109/50LG	XL 180	XL 270	XL 6505
	W	M.AQ 3025 VXL 4930 VXW 6503 XW 395	VW 6508 VXW 6200 VXW 6208 XL 203 XL 204 XL 250 XW 6529		VXW 4926 VXW 4973 VXW 5907 VXW 6210 VXW 6386 VXW 6500 XW 376	CYCAT 500 CYCAT 600 CYCAT 4045 CYCAT 6395	XL 297	-	VXW 6360 VXW 6387 VXW 6388 XL 270	-
Industrial Wood Coatings	S	M Resin M.2100 VXL 4930 XL 122 N XL 123 N	VXL 6237 VXL 6237 N XL 203 XL 204 XL 250 XL 260 N		VXL 4951 VXL 6501	-	XL 109/50LG XL 297	-	XL 270	XL 6505
	W	M.AQ 3025 VXL 4930 VXW 6503 XW 395	VXW 6200 VXW 6208 XL 203 XL 204 XL 250	XW 393	VXW 4926 VXW 4973 VXW 6210 VXW 6386 XW 376	VXW 4940 N VXW 4952 N VXW 6206	XL 297	-	VXW 6360 VXW 6387 VXW 6388 XL 270	-
Decorative Coatings	S	M Resin M.2100 VXL 4930 XL 480 XL 123 N	XL 203 XL 204 XL 250 XL 6514/80 XW 6535		VXL 4951 VXL 6501	-	XL 109/50LG XL 297	-	XL 270	-
	W	M.AQ 3025 VXL 4930 VXW 6503 XW 395	VXW 6200 VXW 6208 XL 203 XL 204 XL 250 XW 330 XW 393	XW 6535	VXW 4926 VXW 4973 VXW 6210 VXW 6386 VXW 6392 VXW 6393 XW 376	VXW 4940 N VXW 4952 N VXW 6206	XL 297	-	VXW 6360 VXW 6387 VXW 6388 XL 270	-
Heavy Duty	S	M Resin M.2100 XL 123 N XL 480 XL 6526	XL 204 XL 250 XL 6208/60		VXL 4951 VXL 6501	-	XL 109/50LG XL 297	XL 180	XL 270	XL 6505
	W	M.AQ 3025 VXW 6503 XW 395	VXW 6208 XL 204 XL 250		VXW 4973 VXW 6210 VXW 6393	VXW 4940 N VXW 4952 N VXW 6206	XL 297	-	VXW 6360 VXW 6387 VXW 6388	-
Can/Coil-Coatings	S	M Resin M.2100 VXL 4930 XL 122 N XL 123 N XL 480 XL 6526	XL 204 XL 250 XL 260 N XL 6514/80		VXL 4951	CYCAT VXK 6395 CYCAT XK 406 N CYCAT 500 CYCAT 600 CYCAT 4040 CYCAT 4045	XL 109/50LG	-	XL 270	-
	W	M.AQ 3025 VXL 4930 XL 123 N XW 395	VXW 6208 XL 204 XL 250		VXW 6500	CYCAT VXK 6395 CYCAT 600 CYCAT 4040 CYCAT 4045	-	-	VXW 6360 VXW 6387 VXW 6388	-

Abbreviations: s = solventborne; w = waterborne; sw = solventborne and waterborne BAC = butyl acetate; LG = mixture of solvents

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Covers coated with UV varnish  
Pub. No. 230116-D

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