PATCHAM

ADDITIVES FOR COATINGS AND INKS

A sustainable approach to coating technology

Dispersing Additives

Wetting Additives

Defoamers

Surface Modification Additives

Rheology Modifiers

A Sustainable Approach to Coating Technology

Patcham FZC is a global manufacturer of specialty additives headquartered in the United Arab Emirates. Since its inception, Patcham has steadily grown to become a leading supplier of metal carboxylates and specialty additives for Paint & Coatings, Inks, PVC, Composites, Polyurethane and Oil field. We also manufacture a range of tin based and tin free catalysts for various end use industries.

The company's Pat-Add range of coating additives are built on providing attributes meeting actual demands on sustainability, technology, performance and competitiveness.

Patcham has a strong manufacturing and R&D infrastructure that enables rapid transition from concept to products. The company has strategically located technical service laboratories, offices, and representatives around the world to provide efficient customer service. In addition, a well-developed robust supply chain network enables us to deliver our products and services to customers around the globe with minimal lead-time.

Wetting and Dispersing Additives

Waterborne Systems

Product Name	Composition	Solvents	Active content (%)	Acid value (mg KOH/g) (Approx)	Amine value (mg KOH/g) (Approx)	Recommended for: Aqueous Systems: Emulsions	Recommended for: Aqueous Systems: Amine Neutr.	Recommended for: Decorative	Recommended for: Industrial	Recommended for: Colorant	Features & Benefits
Pat-Add DA 103	Sodium salt of polyelectrolyte	Water	45%			■	□	■			Standard dispersant for inorganic pigments and fillers for emulsion formulations.
Pat-Add DA 105A*	Ammonium salt polyelectrolyte	Water	43%			■		■			Dispersing agent for inorganic pigments and extenders.
Pat-Add DA 107A*	Ammonium salt polyelectrolyte	Water	21%			■		■			Dispersing agent for inorganic pigments and extenders.
Pat-Add DA 108	Sodium salt copolymer	Water	25%			■	■	■	■		Hydrophobic copolymer dispersant for improving water resistance. For slurries containing basic fillers and pigments.
Pat-Add DA 202	APEO free non-ionic wetting agent	Water	72%			■	■	■			APEO-free non-ionic pigment wetting agent. For all waterborne applications.
Pat-Add DA 203	APEO free non-ionic wetting agent		100%			■	■	■			APEO-free polymeric surface active agent for WB in-plant tinting colorants.
Pat-Add DA 205*	APEO free non-ionic wetting agent		100%			■	■	■	■	■	APEO-free polymeric surface active agent, stronger hydrophobicity than Pat-Add DA 203. Strong stabilization of dispersed pigments and optimizes color development .
Pat-Add DA 209	APEO free non-ionic wetting agent	Water	90%			■	■	■	■	■	APEO-free, for universal usage in dispersion paints and aqueous colorants.
Pat-Add DA 213*	Non-ionic wetting agent	Water	90%			■	■	■			Standard wetting agent for emulsion paints.
Pat-Add DA 302	APEO free non-ionic wetting agent	Water	35%			■	■	■		■	Economical wetting agent replacing APEO based surfactants. For good color acceptance in emulsion paints.
Pat-Add DA 401	Blockcopolymer	Water	28%			■	■		■	■	Highly effective dispersant for inorganic and moderately polar pigments, including carbon blacks, in aqueous systems.
Pat-Add DA 420	Blockcopolymer	Water/Butyl Cellosolve	50%			■	■		■	■	For electrostatic stabilization of inorganic pigments for aqueous industrial systems.
Pat-Add DA 450	Branched polyacrylic copolymer	Water	40%			■	■	■	■	■	Wetting and dispersing additive for glycol free aqueous pigment dispersions.
Pat-Add DA 501	Polymeric uncharged	Water	80%			□	■		■	■	Wetting and dispersing agent for WB organic RMPC and RFPC. For Universal colorants used in conjuction with Pat-Add DA 801 or Pat-Add DA 861.
Pat-Add DA 603	HMV**-Polymeric	Water	54%			■	■	■	■	■	APEO-free polymeric wetting and dispersing agent for all pigment dispersions. Used in a wide range of applications, architectural, textile and industrial paints.
Pat-Add DA 603LV	HMV**-Polymeric	Water	54%			■	■	■	■	■	Low VOC and APEO-free polymeric wetting and dispersing agent for all pigment dispersions. Used in a wide range of applications, architectural, textile and industrial paints.
Pat-Add DA 801	Polymeric electroneutral		100%			□	■	■	■	■	Polymeric dispersant for Industrial Alkyd systems. Used with Pat-Add DA 501 for Universal Colorants.
Pat-Add DA 817	Polymeric slightly cationic		100%			□	■	■	■	■	Wetting and dispersing agent for SB and WB applications. Most suitable in waterborne systems with properly passivated aluminum, and effect pigments with high suspension property.
Pat-Add DA 825	Polymeric with unsaturated groups		100%	32	15	□	■	■	■	■	Solvent and VOC-free dispersant for universal colorants.
Pat-Add DA 861	Polymeric electroneutral		100%	97	40	□	■	■	■	■	Solvent and VOC-free dispersant for universal colorants along with Pat-Add DA 501. Suitable for all pigments, especially Carbon Blacks.

■ Recommended □ Optional

* Check for local supply

** High Molar Volume, Patcham's unique technology

The data in the product selector table is a first recommendation. Suitability of a product should always be checked in the actual paint, coating, or inks formulation.

Wetting and Dispersing Additives

Solventborne and Solventfree Systems

Product Name	Composition	Solvents	Active content (%)	Acid value (mg KOH/g) (Approx)	Amine value (mg KOH/g) (Approx)	Recommended for: Solventborne Systems: Non-Polar	Solventborne Systems: Medium Polar	Solventborne Systems: Polar	Decorative	Industrial	Colorant	Solventfree Systems	Features & Benefits
Pat-Add DA 707	Amphoteric polyester dispersant	White Spirit	72%			■	■	□	■	□			Dispersant for inorganic pigments and fillers. Recommended for alkyd and alkyd modified systems.
Pat-Add DA 801	Polymeric electroneutral		100%			■	■	■	■	■	■	■	Wetting and dispersing additive for colored pigments. Suitable for universal colorants, in conjunction with Pat-Add 501. Recommended for Architectural and Industrial Coatings.
Pat-Add DA 815	Electroneutral solventfree polymeric		100%	28	15	■	■	■		■	■	■	Polymeric wetting and dispersing additive that contains acidic group for effective wetting of inorganic pigments such as TiO_2, fillers and matting agents.
Pat-Add DA 895	Electroneutral solventfree polymeric		100%			■	■	■		■	■	■	Polymeric wetting and dispersing agent for acidic pigments including carbon black. Suitable for Epoxy, UPR, Polyol and PVC Colorants.
Pat-Add DA 932	HMV**- Polymeric	Xylene/MPA	47%		15	□	■	□		■	■		HMV Technology polymeric wetting and dispersing agent for Industrial paints and solvent-borne pigment dispersions.
Pat-Add DA 947	HMV**- Polymeric	Butyl Acetate	60%		18	□	■	■		■	■		HMV Technology polymeric wetting and dispersing agent. Coil coatings, Industrial paints and pigment dispersion. Xylene free.
Pat-Add DA 948	HMV**- Polymeric		100%	2	38	□	■	■		■		■	HMV Technology wetting and dispersing additive for solventfree systems. Recommended for co-grinding Epoxy systems.
Pat-Add DA 1666	Polyamide-polyester electroneutral	Xylene / Isobutanol / Solvesso 100	55%	35	30	■	■	■	■	■			Wide range compatibility. Also provides self assembly structure for anti-settling properties.
Pat-Add DA 1801	Copolymer with organic acidic groups	Xylene/MPA	60%			■	■	■	■	■			Recommended for dispersion of inorganic pigments in particular titanium dioxide, matting agents, special effect pigments and fillers.
Pat-Add DA 1808	Electroneutral organic compound		100%			■	■	■	■	■	■		Wetting and dispersing additive for inorganic and polar pigments in alkyd paints, including Industrial coatings.
Pat-Add DA 1809	Copolymer with organic acidic groups	Xylene/MPA	60%			■	■	■	■	■			Recommended for dispersion of inorganic pigments, matting agents, special effect pigments and fillers.
Pat-Add DA 1812	Copolymer with organic acidic groups		100%			■	■	■	■	■			Recommended for dispersion of inorganic pigments, matting agents, special effect pigments and fillers.
Pat-Add DA 3051	HMV - UCT* Polymeric	Xylene/MPA	35%		6	■	■	■		■	■		Dispersing additive with cationic pigment affinic groups. Recommended for cogrinding baking systems.
Pat-Add DA 3054	HIA** Polymeric	Butyl Acetate	47%		25	■	■	■		■	■		Wetting and dispersing additive for organic and carbon black pigments in high performance coatings, Automotive OEM and Refinish. Suitable for RMPC and RFPC formulations.
Pat-Add DA 3223	HIA** Polymeric - solventfree		100%		53	■	■	■		■	■	■	Solventfree dispersant based on HIA Technology for preparing highly loaded pigment concentrates for high performance coatings, Automotive OEM and Refinish.
Pat-Add DA 3225	HIA** Polymeric - solventfree		100%		58	■	■			■	■	■	Solventfree dispersant based on HIA Technology for preparing highly loaded pigment concentrates in plasticizers and polyol-based systems.

■ Recommended □ Optional

* Check for local supply

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* High Molar Volume Ultra-Charge Technology, Patcham's unique technology

** Hyper Intermolecular Association Technology, Patcham's unique technology

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Compatibilizer for Universal Colorants

Product Name	Composition	Solvents	Active content (%)	Acid value (mg KOH/g) (Approx)	Amine value (mg KOH/g) (Approx)	Recommended for: Aqueous Systems – Emulsions	Aqueous Systems – Amine Neutr.	Decorative	Industrial	Colorant	Features & Benefits
Pat-Add DA 301	Anionic wetting agent	Water	65%			■	■	■		■	Colorant compatibilizer for emulsion and SB alkyd paint bases.

Multi-functional Surfactants

Pat-Add SU 4	Nonionic surface active agents Available in various concentrations with below solvents: 1. Ethylene glycol 2. 2-Propanol 3. Propylene glycol 4. 2-Ethylhexanol 5. 2-Methoxymethylethoxypropanol (Ref: Product data sheet)					■	■	■	■	■	Provide simultaneous wetting and defoaming in inks, paints and adhesives.
Pat-Add SU 420	Polymeric wetting and dispersing agent		99%			■	■	■	■	■	Wetting and foam destabilizing characteristics for waterborne inks, paints and adhesives.
Pat-Add SU 440	Polymeric nonionic surface active agent		99%			■	■	■	■	■	For excellent wetting and dispersing properties in aqueous systems, with minimum foam.

Controlled Flocculation Wetting and Dispersing Additives

Product Name	Composition	Solvents	Active content (%)	Acid value (mg KOH/g) (Approx)	Amine value (mg KOH/g) (Approx)	Recommended for: Solventborne Systems – Non-Polar	Solventborne Systems – Medium Polar	Solventborne Systems – Polar	Decorative	Industrial	Colorant	Solventfree Systems	Features & Benefits
Pat-Add C 7711	Polycarboxylic acid polymer	Xylene/DIBK	50%	130	-		■	■	■	■		■	Wetting and dispersing additive to prevent flooding and floatation of solvent free and medium to high polar solvent-based coatings.
Pat-Add C 7711S	Polycarboxylic acid polymer	Xylene/DIBK	50%	105	-		■	■	■	■		■	Wetting and dispersing additive that contains small amount of polysiloxane to prevent flocculation, floatation and improves surface slip and leveling.

■ Recommended □ Optional

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Defoamers

Mineral Oil Defoamers

Product Name	Composition	Diluent/ Solvent	Active content (%)	Recommended for Aqueous Systems						Features & Benefits
				Emulsion paints, exterior wall paints	Amine Neutr.	Decorative	Industrial	Colorant	PVC Range	
Pat-Add AF 11	Mineral oil with hydrophobes	Mineral oil	100	■	■	■			30-80	Standard mineral oil based defoamer for emulsion paints.
Pat-Add AF 14D	Mineral oil with hydrophobes	Mineral oil	100	■	■	■			30-80	Easy dispersible for emulsion paints.
Pat-Add AF 16	Mineral oil with hydrophobes	Mineral oil / water	54	■	■	■			35-70	Economic version of Pat-Add AF 11.
Pat-Add AF 18	Mineral oil with hydrophobes	Mineral oil	100	■	■	■			40-70	For high PVC emulsion paints.
Pat-Add AF 21	Mineral oil with hydrophobes and polysiloxanes	Mineral oil	100	■	■	■	■	■	20-80	APEO and VOC free defoamer for waterborne paints, inks and pigment dispersions.

Silicone Defoamers

Product Name	Composition	Diluent/ Solvent	Active content (%)	Recommended for												Solventfree Systems	Features & Benefits
				Aqueous Systems						Solventborne Systems							
				Emulsion paints, exterior wall paints	Amine Neutr.	Decorative	Industrial	Colorant	PVC Range	Non-polar	Medium polar	Polar	Decorative	Industrial	Colorant		
Pat-Add AF 31	Polydimethylsiloxane	PG/Butyl carbitol	10%	■	■	■	■		0-25								For waterborne 2K PU, PUD and Acrylic clears.
Pat-Add AF 32	Polyether modified PDMS		100%	■	■	■	■		0-25								For VOC-free waterborne systems, Architectural, Industrial, Inks and Auto OEM.
Pat-Add AF 34	Polyether modified PDMS		100%	■	■	■	■		0-25								For waterborne 2K PU, PUD and Acrylic clears, high compatibility with clear systems.
Pat-Add AF 35	Polysiloxane		100%		■		■	■						□	■	■	Millbase defoamer for aqueous colorants, solventfree colorants and coatings.
Pat-Add AF 38	Modified PDMS		100%	■	■	■	■	■	18-25								Highly effective to eliminate micro foam, also for airless application.
Pat-Add AF 39	Modified PDMS		100%	■	■	■	■	■	0-25								Highly effective to eliminate micro foam, also for airless application. Easy dispersible.
Pat-Add AF 310	Modified PDMS		100%	■	■	□	■										De-aeration for WB Industrial coatings.
Pat-Add AF 320	Modified PDMS		100%	■	■	□	■										De-aeration for WB Industrial coatings.
Pat-Add AF 70	Polysiloxane	Odor less White spirit	5%							■	■	■	□	■	■	■	Specifically for solventfree systems like epoxy and PU's.
Pat-Add AF 72	Polysiloxane	DIBK	1%							■	■	■	■	■		■	Standard PDMS defoamer for all solventborne and solventfree systems.
Pat-Add AF 81	Polysiloxane	Isobutanol/ Solvesso 100	3%							□			□	■		■	Strong air releasing functionality and leveling. Recommended for epoxy clear castings.

■ Recommended □ Optional

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Polymeric Defoamers

Product Name	Composition	Diluent/ Solvent	Active content (%)	Recommended for												Solventfree Systems	Features & Benifits
				Aqueous Systems						Solventborne Systems							
				Emulsion paints, exterior wall paints	Amine Neutr.	Decorative	Industrial	Colorant	PVC Range	Non-polar	Medium polar	Polar	Decorative	Industrial	Colorant		
Pat-Add AF 43	Polymeric		100%	■	■	■	■		0-25								For waterborne Architectural, Wood and Industrial formulations.
Pat-Add AF 61	Polymeric	White Spirit	35%							■	■	■	■	■	■	□	Silicone and fluoro free, recommended for Industrial Coatings and Inks.
Pat-Add AF 62	Polymeric	White spirit /butyl glycol	35%							■	■	■	■	■	■	□	Silicone and fluoro free, recommended for Industrial Coatings and Inks. High compatibility for solventborne clearcoats.

Surface Modification Additives

Product Name	Composition	Solvent	Active content (%)	Recommended for									Solventfree Systems	Properties			
				Aqueous Systems				Solventborne Systems						Surface Slip	Substrate Wetting	Anti-crater Effect	Leveling
				Dispersions	Amine Neutr.	Decorative	Industrial	Non-polar	Medium polar	Polar	Decorative	Industrial					
Pat-Add FL 7	Polyacrylate	Butyl acetate	50%					■	■			■	■		■	■	■
Pat-Add FL 9	Polyacrylate Homopolymer	Butyl acetate	45%					■	■			■	■		■	■	■
Pat-Add LE 1010	Polyether modified polydimethylsiloxane	Xylene	10%					■	■	■	■	■		■	■		■
Pat-Add LE 1019	Polyether modified polydimethylsiloxane		100%			■	■	■	■	■	■	■	■	■	■	■	■
Pat-Add LE 1020	Polyether modified polydimethylsiloxane	Xylene	10%					■	■	■	■	■		■	■		■
Pat-Add LE 1029	Polyether modified polydimethylsiloxane		100%	■	■	■	■	■	■	■	■	■		■	■	■	■
Pat-Add LE 1030	Silicone surfactant	Butyl cellosolve	15%	■	■	■	■								■		■
Pat-Add LE 1034	Polyether modified polydimethylsiloxane	Dipropylene glycol mono methyl ether	52%	■	■	■	■								■		■
Pat-Add LE 1040	Silicone surfactant	Butyl cellosolve	15%	■	■	■	■								■		■
Pat-Add LE 1066	Silicone modified polyether	Odorless petroleum distillates	52%					□	■	■	■	■	■				■
Pat-Add LE 1433	Fluoro modified polyether polyester	DPM / Water	55%	■	■	■	■							■	■	■	■
Pat-Add LE 1075	Surface active polymer	Water	65%	■	■	■	■			□					■		■
Pat-Add LE 1477	Fluoro modified polyacrylate	Butyl acetate	45%					■	■	■	■	■	■	■	■	■	■
Pat-Add SL 1120	Polyether modified polydimethylsiloxane	Butyl acetate	15%					□	■	■		■		■	■	■	■

■ Recommended □ Optional

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Rheology Modifiers

Product Name	Composition	Solvent	Active content (%)	Recommended for Incorporation				Viscosity Development at			Flow Behavior		Application and Properties
				Aqueous Systems	Solventborne Systems	Post Addition	With High Shear	Low shear rate	Medium shear rate (KU)	High shear rate (ICI)	Pseudoplastic	Thixotropic	
Pat-Add Rheol 99	HEUR	Water/ Propylene glycol	35%	■		■		■	■		■		HEUR based liquid associative thickener suitable for wide range of emulsion paints, pigment and extender slurries and colorants, with good flow and sag resistance properties.
Pat-Add Rheol 100	HEUR	Water	35%	■		■		■	■		■		VOC free version of Pat-Add Rheol 99.
Pat-Add Rheol 125 P	HEUR	Water	25%	■		■		■	■		■		HEUR based liquid associative thickener suitable for wide range of low-VOC emulsion paints; excellent Stormer viscosity (KU) builder.
Pat-Add Rheol 253	Organic polymer compound	Xylene/ Isobutanol/ Solvesso 100	55%		■		■		■			■	Liquid rheology modifier to enhance the thixotropy of fumed silica and clay based additives in UPR Systems.

UPR Putty Additives

Product Name	Composition	Solvent	Active content (%)	Recommended for					Application and Properties
				Solventborne Systems			Decorative	Industrial	Solventfree	
				Non-polar	Medium polar	Polar				
Pat-Add DA 2704	Unsaturated polyamides with acid polymers	Dearomatized White Spirit	52%			■	■	■	■	For dispersion of fillers such as calcium carbonate and aluminum trihydrate in UP and Epoxy-Vinyl resins. Reduces viscosity and dispersion time. Prevents settling of fillers.
Pat-Add DA 2708	Unsaturated polyamides with acid polymers	2-butoxyethanol	80%			■	■	■	■	For dispersion of fillers such as calcium carbonate and aluminum trihydrate in UP and Epoxy-Vinyl resins. Reduces viscosity and dispersion time. Prevents settling of fillers.
Pat-Add AF 75	Polymeric air releasing	Solvesso 100	38%	□	■	■	□	■	□	Prevents air entrapment in ambient temperature curing systems, composites and gelcoats.
Pat-Add Rheol 253	Organic polymer compound	Xylene/ Isobutanol / Solvesso 100	55%	□	□			■		Liquid rheology modifier to enhance the thixotropy of fumed silica and clay based additives in UPR system.

Other Additives

Anti-Settling Additive

Pat-Add DA 831	Compound in water, anionic	Water	36%	■	■	□	■	□		Provides anti-settling in highly filled aqueous systems. Recommended for pigments, extenders and matting agents.

Additive for water incorporation into SB alkyd based systems

Pat-Add DA 786	Anionic compound	Water	38%	■	■	□	■	□		For incorporation of water into solvent-borne alkyd systems. Permits replacement of solvent with water to lower VOC's of applied formulation.
Pat-Add DA 788	Anionic compound	Water	45%	■	■	□	■	□		For incorporation of water into solvent-borne alkyd systems. Permits replacement of solvent with water to lower VOC's of applied formulation.

■ Recommended □ Optional

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