



PATCHAM

# PVC PLASTISOL ADDITIVES





## Company Profile

Patcham (ZFC) is a Sharjah, UAE based manufacturer of **Patstab** range of PVC heat stabilizers and **Pat-Add** range of additives for PVC processing.

We produce a range of liquid and powdered mixed metal complexes, Organo-tins, Ba/Zn, Ba/Cd, Ba/Cd/Zn, Ca/Zn, Antimony mercaptide and one-pack solid stabilizers. The additives include wetting & dispersing agents, air release & defoaming additives, processing aids and viscosity depressants.

An ISO 9001:2015 company, our products are sold all over the Middle East, North America, South America, Africa and Asia.

The products are developed at our in-house R&D center, backed by a fully equipped PVC applications laboratory. The lab has the latest testing equipment to measure performance such, as heat stability, rheology, color, air release, surface characteristics, Congo red, electrical properties and others. Along with the standard testing, Patcham Laboratory is also equipped with lab scale machines perfectly operational, capable of replicating and simulating the processes to develop robust formulations for our customers.



Wetting and Dispersing

Patcham Grades	Ref. Index	Acid Value	Amine Value	Spec. Gravity	Type	Composition	Flash Point	Inorganic	Organic	Fillers	Azo	ZnO	Carbon Black	Co-grinds	Characteristics
Pat-Add DA 815	1.459	28	15	1.010 -1.040	Deflocculating	Alkylolammonium salt of a copolymer with acidic groups	130°C/ 266°F	1 - 3%	4 - 12%				7 - 15%		Electro-neutral. PVC plastisol, thermoplastics, polyurethane. Induces Newtonian flow. Suggested for acidic and neutral surface treated carbon black.
Pat-Add DA 2010	1.455	110		1.000 -1.080	Deflocculating	Polymeric compound, with weak acidic moieties	N/A	1 - 3%		0.5 -2%					Anionic. Electro-steric stabilization. Solvent-free. APEO-free. Strong prevention of pigment flocculation, floating/flooding of pigments and fillers.
Pat-Add DA 2025	1.464	110		1.040 -1.080	Deflocculating	Polymeric acid ester of long chain alcohols	145°C/ 293°F	1 - 3%	3 -10%	0.5 -2%	1 -2%	1 -3%			Anionic. Fast pigment wetting properties in high loaded pigment concentrates. Settling / hard-packed sedimentation is minimized due to its high yield point.
Pat-Add DA 2027	1.455	105		1.000 -1.080	Deflocculating	Polymeric acid ester of long chain alcohols	177°C/ 350°F	1 - 3%	3 -10%	0.5 -2%	1 -2%	1 -3%			Anionic. Clear colorless appearance. First choice for TiO <sub>2</sub> dispersions. Pseudoplastic flow behavior for excellent anti-settling.
Pat-Add DA 2029	1.456	102		1.020 - 1.060	Deflocculating	Polymeric acid ester of long chain alcohols	178°C/352°F	1 - 3%	3 -10%	0.5 -2%	1 -2%	1 -3%			Anionic. Designed for high shear dispersion of pigments and fillers, allowing for increased loading levels. Works via strong degree of steric hinderance.
Pat-Add DA 2070	1.484	11	18	0.930-0.970	Controlled Flocculating	Unsaturated polyamide with acid polymers in DIDP	120°C/ 248°F	2 - 6%	5 -15%		2 -3%	2 -3%		3 -5%	50% in DIDP. Electro-neutral polarity. Reduces pigment flood and float. Provides excellent anti-sedimentation. Greatly reduces any plasticizer syneresis layering.
Pat-Add DA 2071	1.470	11	18	0.900-0.960	Controlled Flocculating	Unsaturated polyamide with acid polymers in SME	158°C/ 316°F	2 - 6%	5 -15%		2 -3%	2 -3%		3 -5%	In SME. Electro-neutral polarity. Reduces pigment flood and float. Provides excellent anti-sedimentation. Greatly reduces any plasticizer syneresis layering.
Pat-Add P 7212	1.479	125		0.970-1.010	Controlled Flocculating	Solution of unsaturated polycarboxylicacid polymer in DIDP	120°C/ 248°F	2 - 6%	5 -15%				6 -20%	3 -5%	50% in DIDP. Improves pigment wetting efficiency. Provides excellent anti-sedimentation and resists plasticizer separation. Can be used as a post add.
Pat-Add P 7215	1.474	175		0.920-0.980	Controlled Flocculating	Solution of unsaturated polycarboxylicacid polymer in SME	167°C/ 332°F	2 - 6%	5 -15%				6 -20%	3 -5%	75% in SME. Improves pigment wetting efficiency. Provides excellent anti-sedimentation and resists plasticizer separation. Can be used as a post add.
Pat-Add DA 3225	1.484		58	1.030-1.100	HIA Polymer	Polyether, amine pigment affinic groups	>250°C/482°F	1 - 3%	4 - 12%				7 - 15%		Cationic. Achieves high color strength. Newtonian-flow characteristics. Increases jetness and color value of basic pH carbon black. Wide compatibility.
Pat-Add DA 3234	1.471	22	40	0.900 - 0.950	HMW Polymer	Unsaturated polyamide with acid polymers	196°C/385°F	1 - 3%	4 - 12%				7 - 15%		Anionic. Achieves high color strength. Works on all carbon blacks, regardless of pH. Highly effective on organic pigments, even hard to grind types.



Plastisol Additives

Viscosity Depressants

Patcham Grades	Ref. Index	Acid Value	Spec. Gravity	Flash Point	Solidification Point	Composition	Fogging	Highly Filled	Low/Unfilled	Foamed	Pigmented	Characteristics
Pat-Add VR 7001	1.441	12	0.800 –0.840	>70°C/ >158°F	<-10°C /<-50°F	Aliphatic hydrocarbon with acidic wetting elements	N/A	■	□	■	■	Medium-high volatile. Decreases the viscosity across the whole shear range. Reduces the viscosity increase in heavily filled systems
Pat-Add VR 7005	1.435		0.760 –0.800	104°C/ 219°F	<-20°C/<-68°F	Blend of medium-high volatile hydrocarbons	■	□	■	□	■	High volatile. APEO-free. Reduces the viscosity along a broad shear range. Greatly reducing the chances of a hard-packed sedimentation
Pat-Add VR 7006N	1.447		0.820 –0.860	82°C/ 179°F	<-10°C/<-50°F	Blend of non-ionic agents and aliphatic hydrocarbons	N/A	■	■	■	■	Medium volatile. Most universal viscosity depressant for filled, foamed, pigmented and unfilled systems. Will reduce the viscosity along the entire shear range.
Pat-Add VR 7007	1.441		0.810 –0.850	77°C/ 170°F	<-4°C/<-39°F	Blend of non-ionic agents and aliphatic hydrocarbons	N/A	■	■	■	■	Medium volatile. APEO-free Works well with wetting agents in filled and Pigmented Systems. Results in a high yield point for excellent anti-settling. Shear thins very well.
Pat-Add VR 7008	1.454		1.020-1.060	158°C/ 316°F	<-20°C/<-68°F	A blend of non-ionic surfactants	N/A	□	■	□	■	Low volatile. APEO-free. Effective at low shear rates. PVC resin dependent. Excellent flow and leveling properties. May improve air release.
Pat-Add VR 7025	1.448		0.840 – 0.880	>140°C (>284°F)	-7°C (-44°F)	Blend of carboxylic acid esters	N/A	■	■	■	■	Very low emissions. Non-VOC. APEO-free. Effective at all shear ranges. Excellent flow and leveling properties.

Air Release Additives

Patcham Grades	Ref. Index	Non-Volatile	Spec. Gravity	Flash Point	PHR Additive	Composition	FDA	Unfilled	Filled	Foamed	Characteristics
Pat-Add AF 79	1.408	1.0%	0.790 –0.830	49°C/ 120.2°F	0.1 –0.8	Fluoro-modified Polysiloxane in propylene glycol		■	□	□	Clear liquid defoamer. Provides balance of defoaming and compatibility. Excellent shelf stability. Can be used on own or with AF 5105 or AF 5106
Pat-Add AF 5105	1.458	35±2%	0. 820 -0.850	>40°C/ 104°F	0.25 -1.5	Silicone-free polymer in white spirit/butyl glycol	175.300 175.105	■	■	□	Mix of surface-active substances with foam destroying properties. Strong air release properties, requires only low dosages. Inert, wide range of compatibility.
Pat-Add AF 5106	1.445	100%	1.100 –1.130	135°C/ 275°F	0.25 -1.5	Compounded formulation of polyalkylened-erivatives	175.300 175.105	■	■	□	Silicone-free. Strong air release properties. Inert, wide range of compatibility. Provides better surface quality.

Processing Aids

Patcham Grades	Ref. Index	Acid Value	Spec. Gravity	Flash Point	Solidification Point	Composition	Highly Filled	Low/Unfilled	Foamed	Foamed	Characteristics
Pat-Add PA 711	1.450	20	0.960 - 1.000	200°C (392°F)	<-10°C	Copolymer with acidic group	□	■	■	■	Improves release of PVC compounds from metal molds and release paper. May create partial open celled foams in chemical foams for better indentation recovery







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The information given in this booklet is intended for technical guidance without obligation.

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