



# Additive for solvent-borne system



System	Application	Dispersant	Defoamer	Leveling agent	Functional additive
Wood Coating	PU clear top coat		ASTRA DF1407NS	ASTRA LA101,ASTRA LA1501	Anti-sagging : ASTRA REO1010, ASTRA REO4010
	PU matting top coat	ASTRA DISP2706	ASTRA DF707NS		
	PU primer	ASTRA DISP2706	ASTRA DF907NS		
	PE top coat	ASTRA DISP1606	ASTRA DF1407NS	ASTRA LA1501,ASTRA LA705NS	
	PE primer	ASTRA DISP2706	ASTRA DF707NS, ASTRA DF1407NS	ASTRA LA705NS	
	NC	ASTRA DISP906, ASTRA DISP2706	ASTRA DF707NS	ASTRA LA101, ASTRA LA705NS	
	UV	ASTRA DISP2206	ASTRA DF1207NS, ASTRA DF207NS	ASTRA LA305NS	
Plastic Coating	2K PU	ASTRA DISP2706, ASTRA DISP506		ASTRA LA101, ASTRA LA1501	Adhesion promoter : ASTRA PA1708 Anti-sagging : ASTRA REO4010
	Thermoplastic acrylate			ASTRA LA101, ASTRA LA705NS, ASTRA LA105NS	
Automotive Paint	Top clear coat		ASTRA DF204, ASTRA DF504, ASTRA DF1407NS	ASTRA LA105NS, ASTRA LA1501	Adhesion promoter : ASTRA PA1308 Anti-sagging : ASTRA REO1010, ASTRA REO4010
	Top coat	ASTRA DISP3706, ASTRA DISP2706, ASTRA DISP1606, ASTRA DISP506		ASTRA LA105NS	
	Floating coat	ASTRA DISP6506, ASTRA DISP1606			
	Putty	ASTRA DISP106			
Coil coating/ baking paint	Polyester+ Melamine	ASTRA DISP2706, ASTRA DISP1606, ASTRA DISP506	ASTRA DF1607NS, ASTRA DF707NS	ASTRA LA705NS,ASTRA LA805NS	Adhesion promoter : ASTRA PA1308 Acid catalyst : ASTRA F909 Anti-sagging : ASTRA REO4010   Anti-graffiti : ASTRA LA4001
	Acrylate+Melamine		ASTRA DF707NS, ASTRA DF1607NS	ASTRA LA705NS,ASTRA LA805NS	
UV Coating		ASTRA DISP2206	ASTRA DF1607NS, ASTRA DF1207NS, ASTRA DF207NS	ASTRA LA1601, LA2701, LA1901	Adhesion promoter : ASTRA PA108 Anti-graffiti : ASTRA LA3701
Floor Paint		ASTRA DISP2306, DISP1606, DISP506	ASTRA DF1004	ASTRA LA805NS	
Soft-touch Paint		ASTRA DISP2306, ASTRA DISP506	ASTRA DF504	ASTRA LA101, ASTRA LA1601	
Heavy Duty		ASTRA DISP1106, DISP1606, DISP506	ASTRA DF704, DF1004, DF707NS	ASTRA LA705NS	
Color Paste	Solvent-based	ASTRA DISP6506, ASTRA DISP2306, ASTRA DISP3706, ASTRA DISP2706	ASTRA DF1004		
BMC, SMC		ASTRA DISP106, ASTRA DISP1306, ASTRA DISP1406, ASTRA DISP3506	ASTRA DF507NS, ASTRA DF1407NS	ASTRA LA105NS,ASTRA LA705NS	



# Additive for solvent-borne system



System	Application	Dispersant	Defoamer	Leveling agent	Functional additive
Wood Coating	PU clear top coat		ASTRA DF1407NS	ASTRA LA101,ASTRA LA1501	Anti-sagging : ASTRA REO1010, ASTRA REO4010
	PU matting top coat	ASTRA DISP2706	ASTRA DF707NS		
	PU primer	ASTRA DISP2706	ASTRA DF907NS		
	PE top coat	ASTRA DISP1606	ASTRA DF1407NS	ASTRA LA1501,ASTRA LA705NS	
	PE primer	ASTRA DISP2706	ASTRA DF707NS, ASTRA DF1407NS	ASTRA LA705NS	
	NC	ASTRA DISP906, ASTRA DISP2706	ASTRA DF707NS	ASTRA LA101, ASTRA LA705NS	
	UV	ASTRA DISP2206	ASTRA DF1207NS, ASTRA DF207NS	ASTRA LA305NS	
Plastic Coating	2K PU	ASTRA DISP2706, ASTRA DISP506		ASTRA LA101, ASTRA LA1501	Adhesion promoter : ASTRA PA1708 Anti-sagging : ASTRA REO4010
	Thermoplastic acrylate			ASTRA LA101, ASTRA LA705NS, ASTRA LA105NS	
Automotive Paint	Top clear coat		ASTRA DF204, ASTRA DF504, ASTRA DF1407NS	ASTRA LA105NS, ASTRA LA1501	Adhesion promoter : ASTRA PA1308 Anti-sagging : ASTRA REO1010, ASTRA REO4010
	Top coat	ASTRA DISP3706, ASTRA DISP2706, ASTRA DISP1606, ASTRA DISP506		ASTRA LA105NS	
	Floating coat	ASTRA DISP6506, ASTRA DISP1606			
	Putty	ASTRA DISP106			
Coil coating/ baking paint	Polyester+ Melamine	ASTRA DISP2706, ASTRA DISP1606, ASTRA DISP506	ASTRA DF1607NS, ASTRA DF707NS	ASTRA LA705NS,ASTRA LA805NS	Adhesion promoter : ASTRA PA1308 Acid catalyst : ASTRA F909 Anti-sagging : ASTRA REO4010   Anti-graffiti : ASTRA LA4001
	Acrylate+Melamine		ASTRA DF707NS, ASTRA DF1607NS	ASTRA LA705NS,ASTRA LA805NS	
UV Coating		ASTRA DISP2206	ASTRA DF1607NS, ASTRA DF1207NS, ASTRA DF207NS	ASTRA LA1601, LA2701, LA1901	Adhesion promoter : ASTRA PA108 Anti-graffiti : ASTRA LA3701
Floor Paint		ASTRA DISP2306, DISP1606, DISP506	ASTRA DF1004	ASTRA LA805NS	
Soft-touch Paint		ASTRA DISP2306, ASTRA DISP506	ASTRA DF504	ASTRA LA101, ASTRA LA1601	
Heavy Duty		ASTRA DISP1106, DISP1606, DISP506	ASTRA DF704, DF1004, DF707NS	ASTRA LA705NS	
Color Paste	Solvent-based	ASTRA DISP6506, ASTRA DISP2306, ASTRA DISP3706, ASTRA DISP2706	ASTRA DF1004		
BMC, SMC		ASTRA DISP106, ASTRA DISP1306, ASTRA DISP1406, ASTRA DISP3506	ASTRA DF507NS, ASTRA DF1407NS	ASTRA LA105NS,ASTRA LA705NS	





# Additive for water-borne system



System	Application	Dispersant	Defoamer	Leveling agent	Wetting agent	Rheology modifier
Wood Coating	PUD	ASTRA DISP4706, ASTRA DISP6706, ASTRA DISP5506	ASTRA DF1504	ASTRA LA1001, ASTRA LA1205NS, ASTRA LA1701 (glide)	ASTRA WA1103, ASTRA WA1403, ASTRA WA2403	ASTRA REO3010, ASTRA REO6010, ASTRA REO10010
	Acrylic	ASTRA DISP4706, ASTRA DISP6706, ASTRA DISP5506		ASTRA LA1001, ASTRA LA1205NS, ASTRA LA1701 (glide)	ASTRA WA1103, ASTRA WA1403, ASTRA WA2403	ASTRA REO3010, ASTRA REO6010, ASTRA REO10010
	UV		ASTRA DF1504, ASTRA DF1304	ASTRA LA1001, ASTRA LA1205NS, ASTRA LA1701 (glide)	ASTRA WA1103, ASTRA WA1403, ASTRA WA2403	ASTRA REO3010, ASTRA REO6010, ASTRA REO10010
Plastic paint		ASTRA DISP6706 (black,blue), ASTRA DISP7006 (red,yellow), ASTRA DISP4706 (inorganic pigment)	ASTRA DF1504, ASTRA DF1304	ASTRA LA1205NS, ASTRA LA1001	ASTRA WA703, ASTRA WA1103, ASTRA WA1403, ASTRA WA803, ASTRA WA2403	ASTRA REO3010, ASTRA REO6010, ASTRA REO10010
Automotive paint		ASTRA DISP6706 (black.blue), ASTRA DISP7006 (red,yellow), ASTRA DISP4706 (inorganic pigment), ASTRA DISP6306 (inorganic pigment), ASTRA DISP5506	ASTRA DF1504, ASTRA DF1204, ASTRA DF1304	ASTRA LA1001, ASTRA LA1205NS, ASTRA LA1701 (glide)	ASTRA WA703, ASTRA WA1103, ASTRA WA1403, ASTRA WA803, ASTRA WA2403	ASTRA REO3010, ASTRA REO6010, ASTRA REO10010
Ink	ASTRA DF1504, ASTRA DF1304		ASTRA LA1001, ASTRA LA1205NS, ASTRA LA1701 (glide)	ASTRA WA203, ASTRA WA703, ASTRA WA1103, ASTRA WA1403, ASTRA WA803, ASTRA WA2403	ASTRA REO3010, ASTRA REO6010, ASTRA REO10010	
Industry paint	ASTRA DF1504, ASTRA DF1304		ASTRA LA1001, ASTRA LA1205NS, ASTRA LA1701 (glide)	ASTRA WA203, ASTRA WA703, ASTRA WA1103, ASTRA WA1403, ASTRA WA803, ASTRA WA2403	ASTRA REO3010, ASTRA REO6010, ASTRA REO10010	
Floor coating		ASTRA DISP4706 (inorganic pigment)	ASTRA DF1504	ASTRA LA1205NS	ASTRA WA1103, ASTRA WA1403, ASTRA WA2403	ASTRA REO6010, ASTRA REO10010
Color paste		ASTRA DISP6706 (black,blue), DISP7006 (red,yellow), DISP5506, DISP4706 (inorganic pigment), DISP6306 (inorganic pigment)	ASTRA DF1504		ASTRA WA703, ASTRA WA1103, ASTRA WA1403, ASTRA WA2403	ASTRA REO3010, ASTRA REO6010, ASTRA REO10010
Heavy duty		ASTRA DISP5506, ASTRA DISP4706 (inorganic pigment), ASTRA DISP4606 (inorganic pigment)	ASTRA DF1504	ASTRA LA1001	ASTRA WA703, ASTRA WA1103, ASTRA WA1403, ASTRA WA2403	ASTRA REO3010, ASTRA REO6010, ASTRA REO10010
Architectural coating		ASTRA DISP4606, ASTRA DISP6306 (inorganic pigment)	ASTRA DF2207NS		ASTRA WA703	ASTRA REO3010, ASTRA REO6010, ASTRA REO10010
Leather paint		ASTRA DISP6706 (black,blue), ASTRA DISP7006 (red,yellow), ASTRA DISP5506, ASTRA DISP4706 (inorganic pigment)	ASTRA DF1504, ASTRA DF1304	ASTRA LA1001, Tech-138W, ASTRA LA1701 (glide) , ASTRA LA2301 (mar resistant)	ASTRA WA703, ASTRA WA1103, ASTRA WA1403, ASTRA WA2403	ASTRA REO3010, ASTRA REO6010, ASTRA REO10010





# Silicone defoamers



Product	Appearance	Active content	Dosage	Solvent	Component	Special properties	Water	Solvent	UV
ASTRA DF104	Transparent solution	7%	0.1-1%	paraffin	mixture of foam destroying polymer and silicone	excellent compatibility, rapid defoaming speed and it could be used in any step of the manufacture of paint and UV systems		●	●
ASTRA DF204	Transparent solution	<=3%	0.1-1%	mixed aromatics	solution of modified silicone	excellent compatibility, low possibility to cause crater, rapid defoaming speed and it could be used in any step of the manufacture of paint		●	
ASTRA DF504	Transparent solution	1%	0.1-1%	isooctyl acetate	solution of modified silicone	excellent compatibility, very strong defoaming ability. Its crater possibility should be tested when to be used		●	
ASTRA DF804	Viscous transparent liquid	100%	0.05-1%	none	modified silicone	high efficiency, low possibility to cause crater, special designed for high viscosity system, its compatibility should be tested when used in clear system		●	●
ASTRA DF1004	Turbid viscous liquid	100%	0.05-1%	none	modified silicone with SiO2	high efficiency, excellent performance with low dosage. special designed for high viscosity system, very suitable for epoxy system		●	●
ASTRA DF1904	Viscous transparent liquid	60%	0.05-1%	DPM	modified silicone	high efficiency, low possibility to cause crater, special designed for high viscosity waterborne system	●		●
ASTRA DF1204	White emulsion	25%	0.05-1%	water	silicone emulsion	rapid defoaming speed, easy to disperse, low possibility to cause crater	●		
ASTRA DF1504	Viscous transparent liquid	100%	0.05-1%	none	modified silicone	high efficiency, low possibility to cause crater, special designed for high viscosity waterborne system	●		●

All our silicone antifoam agent products got excellent compatibility, low possibility to cause crater, rapid defoaming speed and it could be used in any step of the manufacture of paint. It is suitable for epoxy and UV systems. Additionally, our silicone antifoam agent products have a long shelf life, making them a cost-effective solution for any paint manufacturing process. They are also easy to handle and can be easily incorporated into your existing production line. Trust us to provide you with high-quality antifoam agents that will improve your paint's performance and enhance your production efficiency. Contact us today to learn more about how our products can benefit your business.





# Non silicone defoamers



Product	Appearance	Active content	Dosage	Solvent	Component	Special properties	Water	Solvent	UV
ASTRA DF107NS	Yellow transparent solution	40%	0.1-1%	paraffin	solution of foam destroying polymer	excellent compatibility, low possibility to cause cratering, very suitable for UV, UPE and epoxy system		●	●
ASTRA DF2207NS	Viscous transparent liquid	100%	0.3-1%	none	foam destroying polymer	special designed for water-borne systems, excellent defoaming, good compatibility	●		
ASTRA DF207NS	Viscous transparent liquid	100%	0.3-1%	none	foam destroying polymer	specially designed for UV systems, excellent compatibility, low possibility to cause cratering		●	●
ASTRA DF707NS	Viscous transparent liquid	75%	0.1-1%	paraffin	acrylate copolymer	high efficiency, specially designed for high viscosity systems, very suitable for the primer with high zinc stearate		●	●
ASTRA DF907NS	Viscous transparent liquid	75%	0.1-1%	paraffin	acrylate copolymer	high efficiency, specially designed for high viscosity systems, very suitable for the primer with high zinc stearate		●	●
ASTRA DF507NS	Viscous transparent liquid	20%	0.1-1%	mixed aromatics	acrylate copolymer	high efficiency, special designed for high viscosity system, the compatibility should be tested when used in clear systems		●	
ASTRA DF1207NS	Yellow transparent solution	7%	0.1-1%	mixed aromatics	solution of foam destroying polymer	excellent compatibility, low possibility to cause cratering, very suitable for UV systems		●	●
ASTRA DF1407NS	Yellow transparent solution	40%	0.1-1%	mixed aromatics	solution of foam destroying polymer	excellent compatibility, low possibility to cause crater, very suitable for UV, UPE and epoxy systems		●	●
ASTRA DF1607NS	Yellow transparent solution	100%	0.1-1%	none	vinyl copolymer	high efficiency, suitable for all kind of solvent-born systems and UV curing systems, it has excellent performance in coil coating systems		●	●





# Silicone leveling agents

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Product	Appearance	Active content	Dosage	Solvent	Component	Polysiloxane content	Terminal group	Molecular weight	Properties	Water	Solvent	UV
ASTRA LA101	Transparent solution	15%	0.1-1%	mixed aromatics	solution of polysiloxane-polyether copolymer	Middle	none	Middle	suitable for all kinds of systems, good compatibility and slip, reduction of surface tension, helpful for the orientation of matting agent		●	●
ASTRA LA1301	Viscous transparent liquid	100%	0.1-1%	none	polysiloxane-polyether copolymer	Middle	none	Middle	suitable for all kinds systems, good compatibility, reduction of surface tension, excellent substrate wetting, specially designed for UV systems	●	●	●
ASTRA LA1601	Viscous transparent liquid	100%	0.1-1%	none	polysiloxane-polyether copolymer	Middle	none	Middle	suitable for all kinds of systems, good compatibility and slip, it could greatly decrease the surface tension and helpful for the orientation of matting agentz	●	●	●
ASTRA LA4001	Viscous transparent liquid	25%	0.1-1%	mixed dibasic esters	modified silicone	Middle	none	Middle	good compatibility, suitable for all kinds of solvent-born systems. Because of its -OH group, it could react in PU and melamine systems. It provide excellent anti-blocking and anti-graffiti effect. It is very suitable for soft feeling coating		●	
ASTRA LA1701	Viscous transparent liquid	100%	0.1-1%	none	polysiloxane-polyether copolymer	Middle	none	Middle	suitable for all kinds of systems, good compatibility and excellent slip, reduction of surface tension, helpful for the orientation of matting agent	●	●	●
ASTRA LA1501	Viscous transparent liquid	100%	0.1-1%	none	polysiloxane-polyether copolymer	Middle	none	Middle	suitable for all kinds of systems, good compatibility and excellent slip, reduction of surface tension, helpful for the orientation of matting agent	●	●	●
ASTRA LA201	Transparent solution	25%	0.1-1%	mixed aromatics	solution of polysiloxane-polyester copolymer	Middle	none	Middle	suitable for all kinds of solvent-based systems, good compatibility and slip, reduction of surface tension, helpful for the orientation of matting agent		●	●
ASTRA LA501	Transparent liquid	100%	0.1-1%	none	polysiloxane-polyether copolymer	Low	none	High	suitable for all systems, good leveling and good compatibility	●	●	●
ASTRA LA701	Transparent solution	50%	0.1-1%	paraffin	modified silicone solution	Middle	none	Middle	excellent leveling and defoaming, suitable for baking systems, improve the orientation of the matting agent		●	●
ASTRA LA801	Viscous transparent liquid	100%	0.1-1%	none	organic modified silicone	High	none	Middle	excellent leveling and defoaming, suitable for baking systems, improve the orientation of the matting agent.the compatibility should be tested when used in clear systems		●	●





# Silicone leveling agents

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Product	Appearance	Active content	Dosage	Solvent	Component	Polysiloxane content	Terminal group	Molecular weight	Properties	Water	Solvent	UV
ASTRA LA901	Transparent solution	50%	0.1-1%	mixed aromatics	modified silicone solution	Middle	none	Middle	suitable for all solvent-borne systems, good leveling		●	●
ASTRA LA1001	Transparent liquid	100%	0.1-1%	none	polysiloxane-polyether copolymer	Low	none	High	suitable for all system, good leveling and good compatibility, suitable for water-borne systems	●	●	●
ASTRA LA1101	Viscous transparent liquid	100%	0.1-1%	none	polysiloxane-polyether copolymer	Middle	ch2oh	Middle	suitable for all kinds of systems, good compatibility and excellent slip, reduction of surface tension, helpful for the orientation of matting agent	●	●	●
ASTRA LA1201	Yellow transparent liquid	100%	0.1-1%	none	polysiloxane-polyether copolymer	Middle	none	Middle	suitable for paint systems, good compatibility and leveling	●	●	●
ASTRA LA1901	Viscous transparent liquid	100%	0.1-1%	none	polysiloxane-polyether copolymer	Middle	none	High	excellent wetting and leveling, good slip, mar resistance and anti-cratering, it is suitable for UV systems, such as UV paper coating, UV plastic coating	●	●	●
ASTRA LA4201	Viscous transparent liquid	100%	0.1-1%	none	polysiloxane-polyether copolymer	Middle	none	Middle	suitable for all kinds of systems, good compatibility and excellent slip, reduction of surface tension, helpful for the orientation of matting agent	●	●	●
ASTRA LA2301	White emulsion	40%	0.1-1%	none	high molecular weight silicone emulsion	High	none	High	suitable for all kinds of systems, good compatibility and excellent slip, it could greatly decrease the surface tension and helpful for the orientation of matting agent	●		
ASTRA LA2701	Viscous transparent liquid	100%	0.1-1%	none	polysiloxane-polyether copolymer	Middle	none	Middle	excellent wetting and leveling, good slip, mar resistance and anti-cratering.	●	●	●
ASTRA LA2801	Viscous transparent solution	10%	0.1-3%	mixed aromatics	solution of modified silicone	High	none	High	suitable for solvent-borne systems and could provide excellent hammer effect		●	
ASTRA LA3101	Viscous transparent liquid	100%	0.1-1%	none	polysiloxane-polyether copolymer	Middle	ch2oh	Middle	excellent anti-crater ability, excellent slip and good leveling, improve the orientation of the matting agent and it could provide excellent anti-block effect when used in PU leather systems	●	●	





# Silicone leveling agents

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Product	Appearance	Active content	Dosage	Solvent	Component	Polysiloxane content	Terminal group	Molecular weight	Properties	Water	Solvent	UV
ASTRA LA3201	Viscous transparent liquid	100%	0.1-1%	none	modified silicone	Middle	Acrylic group	Middle	acrylic group functioned, suitable for UV systems, good compatibility, good leveling and middle slip effect with some air release performance		●	●
ASTRA LA3301	Viscous transparent liquid	100%	0.1-1%	none	modified silicone	Middle	Acrylic group	Middle	acrylic group functioned, very suitable for UV systems, good compatibility, good leveling and slip effect	●	●	●
ASTRA LA3401	Viscous transparent liquid	100%	0.1-1%	none	polysiloxane-polyether copolymer	Middle	Acrylic group	High	excellent wetting and leveling, good slip, mar resistance and anti-crater ability, it is suitable for UV systems, such as UV paper coating, UV plastic coating	●	●	●
ASTRA LA3701	Turbid viscous liquid	100%	0.1-1%	none	modified silicone	High	Acrylic group	High	suitable for UV system because of its acrylic group, it could cross in UV system and provide excellent anti-block and anti-graffiti properties			●







# Silicone free leveling agents



Product	Appearance	Active content	Dosage	Solvent	Component	Special properties	Water	Solvent	UV
ASTRA LA505NS	Transparent solution	100%	0.1-1%	mixed aromatics	mixed aromatics	good compatibility and substrate wetting properties, leveling improve		●	●
ASTRA LA1005NS	Transparent solution	80%	0.1-1%	Dipropylene glycol mono methyl ether	solution of acrylate copolymer	good compatibility, strong substrate wetting ability and excellent leveling, suitable for water-based and solvent-based systems	●	●	●
ASTRA LA705NS	Viscous transparent liquid	50%	0.1-1%	mixed aromatics	acrylate copolymer	good compatibility, substrate wetting ability, leveling and defoaming properties, suitable for coil coating systems		●	●
ASTRA LA805NS	Viscous transparent liquid	50%	0.1-1%	mixed aromatics	solution of acrylate copolymer	strong defoaming properties with good leveling, compatibility should be tested when used in clear systems		●	●
ASTRA LA105NS	Transparent solution	50%	0.1-1%	mixed aromatics	solution of acrylate copolymer	good compatibility, substrate wetting ability and excellent leveling, suitable for car refinish and UV systems		●	●
ASTRA LA1105NS	Transparent solution	50%	0.1-1%	Dipropylene glycol mono methyl ether	solution of acrylate copolymer	good compatibility, strong substrate wetting ability and excellent leveling, suitable for water-based and solvent-based systems	●	●	●
ASTRA LA1205NS	Transparent solution	50%	0.1-1%	Dipropylene glycol mono methyl ether	solution of acrylate copolymer	good compatibility, strong substrate wetting ability and excellent leveling, suitable for water-based and solvent-based systems	●		
ASTRA LA305NS	Viscous transparent liquid	50%	0.1-1%	none	acrylate copolymer	good compatibility, substrate wetting ability, leveling and antifoam properties, suitable for coil coating systems		●	●
ASTRA LA405NS	Viscous transparent liquid	100%	0.1-1%	none	acrylate copolymer	good compatibility, strong substrate wetting ability and excellent leveling, suitable for refinish and UV systems		●	●





# Substrate Wetting Agent



Product	Appearance	Active content	Dosage	Solvent	Component	Special properties	Water	Solvent	UV
ASTRA WA103	Transparent solution	50%	0.1-1%	ethylene glycol	solution of mixture of surfactants	suitable for water-borne systems, excellent substrate wetting and defoaming properties, excellent dynamic surface activity	●		
ASTRA WA203	Viscous yellow transparent solution	100%	0.1-1%	none	mixture of surfactants	suitable for water-borne systems, excellent substrate wetting and excellent dynamic surface activity	●		
ASTRA WA703	Viscous yellow transparent solution	100%	0.1-1%	none	mixture of surfactants	suitable for water-borne and solvent-borne systems, excellent substrate wetting and anti-cratering properties, no slip effect, should be use in PH 6-8	●		
ASTRA WA803	Viscous yellow transparent liquid	100%	0.1-1%	none	mixture of surfactants	suitable for water-borne and solvent-borne systems, excellent substrate wetting and anti-cratering properties, no slip effect	●	●	●
ASTRA WA1103	Viscous transparent liquid	50%	0.1-1%	Dipropylene glycol mono methyl ether	solution of polysiloxane-polyether copolymer	suitable for water-borne and solvent-borne systems, excellent substrate wetting and anti-cratering properties, no slip effect	●	●	●
ASTRA WA1303	Transparent solution	50%	0.1-1%	none	mixture of surfactants	suitable for water-borne systems, excellent substrate wetting and excellent dynamic surface activity	●		
ASTRA WA1403	Viscous yellow transparent liquid	100%	0.1-1%	none	polysiloxane-polyether copolymer	suitable for water-borne and solvent-borne systems, excellent substrate wetting and anti-crater ability, no slip effect	●	●	●
ASTRA WA2003	Viscous transparent liquid	100%	0.1-1%	none	polysiloxane-polyether copolymer	suitable for water-borne and solvent-borne systems, excellent substrate wetting and anti-cratering properties, no slip effect	●	●	●
ASTRA WA2703	Viscous transparent liquid	100%	0.1-1%	none	mixture of surfactants	suitable for water-borne and solvent-borne systems, excellent substrate wetting and anti-cratering properties ability, no slip effect	●		
ASTRA WA2103	Viscous transparent liquid	100%	0.1-1%	none	polysiloxane-polyether copolymer	suitable for water-borne and solvent-borne systems, excellent substrate wetting and anti-cratering properties, no slip effect	●	●	●
ASTRA WA2403	Viscous transparent liquid	100%	0.1-1%	none	polysiloxane-polyether copolymer	suitable for water-borne and solvent-borne systems, excellent substrate wetting and anti-cratering properties, no slip effect. it should be use in PH 6-8	●	●	●
ASTRA WA2203	Viscous transparent liquid	100%	0.1-1%	none	polysiloxane-polyether copolymer	suitable for water-born and solvent-borne systems, excellent substrate wetting and anti-cratering properties, no slip effect	●	●	●





# Reactive Silicone



Product	Appearance	Active content	Dosage	Special properties	Water	Solvent	UV
ASTRA REACT102	Viscous transparent liquid	100%	persistent slip 0.2-1 % anti-din 2-6% resin modifier 1 -6%	Modified silicone with the terminal group of CH <sub>2</sub> OH, it could react with the resin when used in melamine and urathane system and introduce the special properties of silicone into the resin system.		●	
ASTRA REACT202	Viscous transparent liquid	100%	persistent slip 0.2-1 % anti-dirt 2-6% resin modifier 1 -6%	Modified silicone with the terminal group of CH <sub>2</sub> OH, it could react with the resin when used in melamine and urathane system and introduce the special properties of silicone into the resin system.		●	
ASTRA REACT402	Viscous transparent liquid	100%	persistent slip 0.2-1 % anti-dirt 2-6% resin modifier 1 -6%	Modified silicone with the terminal group of CH <sub>2</sub> OH, it could react with the resin when used in melamine and urathane system and introduce the special properties of silicone into the resin system.		●	
ASTRA REACT502	Viscous transparent liquid	100%	persistent slip 0.2-1 % anti-dirt 2-6% resin modifier 1 -6%	Modified silicone with the terminal group of CH <sub>2</sub> OH, it could react with the resin when used in melamine and urathane system and introduce the special properties of silicone into the resin system.	●	●	
ASTRA REACT602	Viscous transparent liquid	100%	persistent slip 0.2-1 % anti-dirt 2-6% resin modifier 1 -6%	Modified silicone with the terminal group of CH <sub>2</sub> OH, it could react with the resin when used in melamine and urathane system and introduce the special properties of silicone into the resin system.	●	●	
ASTRA REACT702	Viscous transparent liquid	100%	persistent slip 0.2-1 % anti-dirt 2-6% resin modifier 1 -6%	Modified silicone with the terminal group of CH <sub>2</sub> OH, it could react with the resin when used in melamine and urathane system and introduce the special properties of silicone into the resin system.	●	●	
ASTRA REACT802	Viscous transparent liquid	100%	persistent slip 0.2-1 % anti-dirt 2-6% resin modifier 1 -6%	Modified silicone with the terminal group of CH <sub>2</sub> COCH=CH <sub>2</sub> , it could react with the resin when used in UV and UPE system and introduce the special properties of silicone into the resin system.		●	●
ASTRA REACT902	Viscous transparent liquid	100%	persistent slip 0.2-1 % anti-dirt 2-6% resin modifier 1 -6%	Modified silicone with the terminal group of CH <sub>2</sub> COCH=CH <sub>2</sub> , it could react with the resin when used in UV and UPE system and introduce the special properties of silicone into the resin system.		●	●
ASTRA REACT1002	Viscous transparent liquid	100%	persistent slip 0.2-1 % anti-dirt 2-6% resin modifier 1 -6%	Modified silicone with the terminal group of CH <sub>2</sub> COCH=CH <sub>2</sub> , it could react with the resin when used in UV and UPE system and introduce the special properties of silicone into the resin system.			●
ASTRA REACT1102	Viscous transparent liquid	100%	persistent slip 0.2-1 % anti-dirt 2-6% resin modifier 1 -6%	Modified silicone with the terminal group of CH <sub>2</sub> CHOCH <sub>2</sub> , it could react with the resin when used in epoxy system and introduce the special properties of silicone into the resin system.		●	
ASTRA REACT1202	Viscous transparent liquid	100%	persistent slip 0.2-1 % anti-dirt 2-6% resin modifier 1 -6%	Modified silicone with the terminal group of CH <sub>2</sub> CHOCH <sub>2</sub> , it could react with the resin when used in epoxy system and introduce the special properties of silicone into the resin system.		●	
ASTRA REACT1302	Viscous transparent liquid	100%	0.2-1%	Modified silicone with the terminal group of CH <sub>2</sub> NH <sub>2</sub> , it could react with the resin when used in melamine and urathane system and introduce the special properties of silicone into the resin system.		●	





# Adhesion Promoter



Product	Appearance	Active content	Dosage	Solvent	Component	Special properties	Water	Solvent	UV
ASTRA PA108	Transparent liquid	100%	0.1-1%	none	silicone compound	contain acryloyl group, could react with the resin and the inorganic substrate such as glass, metal, improve the adhesion and the water-resistance, salt spray resistance of the paint film		●	●
ASTRA PA208	Transparent liquid	100%	0.1-1%	none	silicone compound	contain acryloyl group, could react with the resin and the inorganic substrate such as glass, metal, improve the adhesion and the water-resistance, salt spray resistance of the paint film		●	
ASTRA PA308	Transparent viscous solution	60%	0.1-5%	2-Butoxy ethanol	special polymer	good compatibility with resin system, it could react with melamine and NCO group, greatly improve the adhesion to metal substrate. It also improve the water-resistance, salt spray resistance	●	●	
ASTRA PA708	Transparent liquid	100%	0.1-1%	none	silicone compound	contain amine group, could react with the resin and the inorganic substrate such as glass, metal, improve the adhesion and the water-resistance, salt spray resistance of the paint film		●	
ASTRA PA908	Transparent liquid	100%	0.1-1%	none	silicone compound	contain epoxy group, special designed for water-borne systems, it could react with the resin and the inorganic substrate such as glass, metal, improve the adhesion and the water-resistance, salt spray resistance of the paint film	●	●	
ASTRA PA1108	Transparent liquid	100%	0.1-1%	none	organic phosphate	contain acryloyl group, could react with the resin and the inorganic substrate such as glass, metal, improve the adhesion and the water-resistance, salt spray resistance of the paint film			●
ASTRA PA1308	Transparent viscous solution	60%	0.1-5%	DMAC	special polymer	good compatibility with resin system, it could react with melamine and NCO group, greatly improve the adhesion to metal substrate. It also improve the water-resistance, salt spray resistance	●	●	
ASTRA PA1408	Transparent viscous solution	60%	0.1-5%	mixed aromatics	special polymer	good compatibility with resin system, improve the adhesion of the paint film and the water-resistance, salt spray resistance		●	
ASTRA PA1608	Transparent yellow solution	50%	0.2-2.0%	isopropanol	organic titanium compound	organic titanium compound, in the room temperature, it is unreactive, when the temperature higher than 60 centigrade, it will decompose and react with the OH, COOH group of the substrate and the resin system to improve the adhesion and heat-resistance of the paint film.		●	
ASTRA PA1708	Transparent liquid	20%	0.2-2.0%	mixed aromatics	chlorinated polyolefin	modified chlorinated polyolefin, greatly improve the adhesion to the polyolefin substrate and increase the water-resistance, salt spray resistance		●	●




**Dosage abbreviations:**

IP - inorganic pigment

OP - organic pigment

CB - carbon black



Product	Appearance	Active content	Dosage	Solvent	Component	Special properties	Water	Solvent	UV
ASTRA DISP406	Yellow transparent solution	50%	IP : 0.5 - 2% OP: 10 - 30%	mixed aromatics	solution of pigment affinity compound	suitable for all solvent-borne system and helpful for wetting of pigment, strong anti-floating and anti-flooding effect		●	
ASTRA DISP1006	Yellow viscous transparent solution	50%	IP : 0.5 - 2% OP: 10 - 30% CB: 20 - 50%	mixed aromatics	copolymer with amide group	suitable for low polarity system, suitable for most pigments, viscosity reduction, increase the gross		●	
ASTRA DISP1306	Viscous transparent liquid	50%	TiO <sub>2</sub> : 2 - 4% IP : 1 - 5%	mixed aromatics	compound with pigment affinity group	dispersant for inorganic pigments, especially TiO <sub>2</sub> , reduction of viscosity of the system, increase the gross and the hiding power, helpful for the substrate wetting		●	●
ASTRA DISP1406	Viscous transparent liquid	100%	TiO <sub>2</sub> : 2 - 4% IP : 1 - 5%	mixed dibasic esters	compound with pigment affinity group	dispersant for inorganic pigments, especially TiO <sub>2</sub> , reduction of viscosity of the system, increase the gross and the hiding power, helpful for the substrate wetting		●	●
ASTRA DISP2706	Brown transparent solution	50%	IP : 10 - 15% OP: 30 - 90% CB: 70 - 140%	mixed dibasic esters	compound with pigment affinity group	suitable for medium polarity system, good compatibility with different types of resins, suitable for all kinds of pigment, strong dispersing power and excellent storage stability		●	
ASTRA DISP3106	Brown transparent solution	50%	IP : 10 - 15% OP: 30 - 90% CB: 70 - 140%	mixed dibasic esters	compound with pigment affinity group	suitable for medium polarity system, good compatibility with different types of resins, suitable for all kinds of pigment, strong dispersing power and excellent storage stability		●	●
ASTRA DISP3206	Brown viscous liquid	100%	IP : 1 - 5% OP: 10 - 30% CB: 20 - 60%	none	compound with pigment affinity group	suitable for low polarity system, suitable for most pigments, viscosity reduction, increase the gross		●	
ASTRA DISP3506	Viscous transparent liquid	100%	TiO <sub>2</sub> : 2 - 4% IP : 1 - 5%	none	compound with pigment affinity group	dispersant for inorganic pigments, especially TiO <sub>2</sub> , viscosity reduction, increase the gross and the hiding power, helpful for the substrate wetting		●	●
ASTRA DISP3606	Brown viscous liquid	100%	IP : 1 - 5% OP: 10 - 30% CB: 20 - 60%	none	compound with pigment affinity group	suitable for low polarity system, suitable for most pigments, viscosity reduction, increase the gross		●	
ASTRA DISP2106	Viscous brown transparent liquid	100%	IP : 1 - 5% OP: 10 - 30% CB: 20 - 60%	none	compound with pigment affinity group	suitable for medium polarity system, good compatibility with different types of resins, suitable for all kind of pigments, strong dispersing power and excellent storage stability		●	●




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Product	Appearance	Active content	Dosage	Solvent	Component	Special properties	Water	Solvent	UV
ASTRA DISP3706	Brown transparent solution	50%	IP : 10 - 15% OP: 30 - 90% CB: 70 - 140%	mixed dibasic esters	copolymer with pigment affinity group	suitable for medium polarity system, good compatibility with different types of resins, suitable for all kind of pigments, strong dispersing power and excellent storage stability		●	●
ASTRA DISP2206	Viscous brown transparent liquid	100%	IP : 10 - 15% OP: 30 - 90% CB: 70 - 140%	none	copolymer with pigment affinity group	suitable for medium polarity system, good compatibility with different types of resins, suitable for all kind of pigments, strong dispersing power and excellent storage stability		●	●
ASTRA DISP2306	Brown transparent solution	40%	IP : 10 - 15% OP: 30 - 90% CB: 70 - 140%	mixed aromatics	copolymer with pigment affinity group	suitable for medium polarity system, good compatibility with different types of resins, suitable for all kind of pigments, strong dispersing power and excellent storage stability		●	●
ASTRA DISP2406	Viscous brown transparent liquid	100%	IP : 10 - 15% OP: 30 - 90% CB: 70 - 140%	none	copolymer with pigment affinity group	suitable for medium polarity system, good compatibility with different types of resins, suitable for all kind of pigments, strong dispersing power and excellent storage stability		●	●
ASTRA DISP3906	Orange powder	100%	10 - 20 % to the disp	none	pigment derivative	pigment derivative, designed for red,yellow and orange, because of the polar group on its surface, it greatly improve the adsorption of the dispersant to the surface of pigment, improve the efficiency of the dispersant, decrease the viscosity and increase the gross and store stability	●	●	●
ASTRA DISP3806	Drak-blue powder	100%	10 - 20 % to the disp	none	pigment derivative	pigment derivative, designed for red,yellow and orange, because of the polar group on its surface, it greatly improve the adsorption of the dispersant to the surface of pigment, improve the efficiency of the dispersant, decrease the viscosity and increase the gross and store stability	●	●	●
ASTRA DISP4606	Yellow viscous transparent solution	40%	IP : 10 - 25% IP: 5 - 20% CB: 20 - 60%	water	copolymer with pigment affinity group	suitable for water-borne systems, low foaming, viscosity reduction, increase the gross	●		
ASTRA DISP4706	Yellow viscous transparent solution	40%	IP : 10 - 25% IP: 5 - 20% CB: 20 - 60%	water	copolymer with pigment affinity group	suitable for water-borne systems, low foaming, viscosity reduction, increase the gross	●		
ASTRA DISP6806	Yellow transparent liquid	100%	OP: 5 - 20% CB: 10 - 40%	none	copolymer with pigment affinity group	specialy designed for water-born system, very suitable for carbon black, phthalocyanine blue, low foaming, viscosity reduction, increase the gross	●		
ASTRA DISP6706	Yellow transparent liquid	50%	OP: 5 - 20% CB: 10 - 40%	water	copolymer with pigment affinity group	specialy designed for water-born system, very suitable for carbon black, phthalocyanine blue, low foaming, viscosity reduction, increase the gross	●		




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Product	Appearance	Active content	Dosage	Solvent	Component	Special properties	Water	Solvent	UV
ASTRA DISP7006	Yellow transparent solution	50%	OP: 5 - 20% CB: 10 - 40%	water	copolymer with pigment affinity group	suitable for water-borne systems, low foaming, viscosity reduction, increase the gross, very suitable for organic pigment	●		
ASTRA DISP5506	Yellow transparent solution	50%	IP : 20 - 30% OP: 30 - 75% TiO2: 10 - 12% CB: 130 - 150%	water	copolymer with pigment affinity group	suitable for water-borne systems, low foaming, decrease the viscosity, increase the gross, it is very suitable for the resin free color paste	●		
ASTRA DISP6006	Yellow viscous transparent liquid	100%	IP : 10 - 15% OP: 30 - 90% TiO2: 5 - 6% CB: 70 - 140%	none	copolymer with pigment affinity group	suitable for water-borne and solvent-borne systems, viscosity reduction, increase the gross, excellent performance when used to disperse carbon black	●	●	●
ASTRA DISP6206	Yellow viscous transparent liquid	100%	OP: 5 - 20% CB: 10 - 40%	none	copolymer with pigment affinity group	suitable for water-borne systems, low foaming, viscosity reduction, increase the gross, only suitable for organic pigments	●		
ASTRA DISP6306	Transparent liquid	100%	IP: 1 - 5%	none	copolymer with pigment affinity group	suitable for water-borne systems, low foaming, special designed for nanosized particles	●	●	●
ASTRA DISP6506	Transparent liquid	100%	IP: 1 - 5% OP: 10 - 30% CB: 20 - 50%	none	copolymer with pigment affinity group	suitable for water-borne and solvent-borne systems, viscosity reduction, increase the gross, excellent performance with carbon black	●	●	●
ASTRA DISP1106	Yellow viscous liquid	100%	IP: 1 - 2% bentonite: 5% - 20%	none	compound with pigment affinity group	dispersant for inorganic pigments, viscosity reduction, increase the gross and the hiding power, helpful for the substrate wetting		●	●
ASTRA DISP1606	Light yellow transparent solution	50%	IP: 1 - 5% TiO2: 2 - 4%	mixed dibasic esters	compound with pigment affinity group	dispersant for inorganic pigments, especially TiO2, viscosity reduction, increase the gross and the hiding power, helpful for the substrate wetting		●	●
ASTRA DISP2006	Yellow powder	100%	IP: 10 - 15% OP: 30 - 90% CB: 70 - 140%	none	compound with pigment affinity group	suitable for medium polarity system, good compatibility with different types of resins, suitable for all kind of pigments, strong dispersing power and excellent storage stability		●	●





# Functional Additive



Product	Appearance	Active content	Dosage	Solvent	Component	Special properties	Water	Solvent	UV
ASTRA F209	Yellow transparent solution	25%	1 -5%	mixed alcohol	sulfonic acid amine salt	sulfonic acid catalyst for melanine system, blocked by organic amine, increase the water-resistance and salt spray resistance	●	●	
ASTRA F909	Yellow transparent solution	25%	1 -5%	DMAC	sulfonic acid amine salt	sulfonic acid catalyst for melanine system, blocked by organic amine, increase the water-resistance and salt spray resistance	●	●	
ASTRA F409	Yellow transparent solution	25%	0.1-1%	butanol	quaternary ammonium	sulfonic acid catalyst for melanine system, blocked by organic amine, it also increase the water-resistance and salt spray resistance		●	●
ASTRA F509	Yellow transparent solution	75%	0.1 -1%	none	quaternary ammonium	special quaternary ammonium compound, could dissolved in most solvent easily, improve the anti-static property.		●	●





# Rheology Modifier



Product	Appearance	Active content	Dosage	Solvent	Component	Special properties	Water	Solvent	UV
ASTRA REO1010	Yellow viscous solution	50%	anti-setting: 0.1 - 0.7% anti-sagging: 0.5 - 3.0%	NMP	solution of polyurea compound	strong rheology performance, easy to introduce, suitable for all kinds of solvent-based systems, used as anti-setting and anti-sagging agent		●	
ASTRA REO4010	Light yellow paste	20%	anti-setting: 0.5 - 2.0% anti-sagging: 2.0 - 5.0%	aromatic alcohol	dispersion of polyamide wax	small sized, easy to disperse, suitable for all kinds of solvent-based systems, used as anti-setting and anti-sagging agent		●	
ASTRA REO6010	White emulsion	30%	anti-setting: 0.5 - 2.0% anti-sagging: 2.0 - 5.0%	water	water-born polymer with hydrophobic group	provide rheology and leveling, suitable for water-borne systems, could be used in wide range of PH system	●		
ASTRA REO7010	Light yellow viscous solution	20%	anti-setting: 0.5 - 2.0% anti-sagging: 2.0 - 5.0%	water	water-born polymer with hydrophobic group	provide rheology and leveling, suitable for water-borne systems, could be used in wide range of PH system	●		
ASTRA REO8010	Light yellow viscous solution	20%	anti-setting: 0.5 - 2.0% anti-sagging: 2.0 - 5.0%	water / diethylene glycol monobutylether	water-born polymer with hydrophobic group	provide rheology and leveling, suitable for water-borne systems, could be used in wide range of PH system	●		
ASTRA REO9010	Light yellow viscous solution	20%	anti-setting: 0.5 - 2.0% anti-sagging: 2.0 - 5.0%	water	water-born polymer with hydrophobic group	provide rheology and leveling, suitable for water-borne systems, could be used in wide range of PH system	●		
ASTRA REO10010	Light yellow viscous solution	20%	anti-setting: 0.5 - 2.0% anti-sagging: 2.0 - 5.0%	water / diethylene glycol monobutylether	water-born polymer with hydrophobic group	provide rheology and leveling, suitable for water-borne systems, could be used in wide range of PH system	●		

