

◆ Additives for paint, printing inks, plastics, sealant, and

A-S-A® is the product we developed as additives for paint, printing inks, plastics, sealant and adhesive. As A-S-A® are classified into the below series by the applications, please grasp each of the characteristics and the actions to select the right one.

Anti Sagging agent, Pigment Sedimentation-preventing Agent

A-S-A®T Series, TS

Pigment Sedimentation, Caking-preventing Agent

A-S-A®D Series, DS

Antifoaming Agent for solvent based paint

A-S-A®DF Series

Viscosity Modifier for emulsion paint

A-S-A®ER Series

Pigment Sedimentation-preventing Agent for water based paint

A-S-A®TW Series

Antiblocking agent

A-S-A®R Series

Leveling Agent for powder coating

A-S-A®VF Series

◆ Paint · Printing Ink · Sealant Additive (A-S-A®)

A-S-A®T Series, TS Series

Anti sagging agent, Pigment Sedimentation-preventing agent

- A-S-A®T series is used for preventing paint, unsaturated polyester resin and adhesive from sagging and pigment from hard cake, viscosity improvement of calking material and sealing material, and prevention of slump.

Powder Type

- T-20SF and T-75F are used mainly for paint, calking material or sealing material made of epoxy resin, alkyd resin, polyurethane, chlorinated rubber, Thiokol, butyl rubber and unsaturated polyester resin.
- T-250F, T-550F and T-850F are used to prevent anti corrosion paint such as epoxy and polyurethane from sagging. T-250F performs well as viscosity improvement of main material is less. T-850F displays the high efficiency at wide range of working temperature. T-550F is improved type of T-250F in anti sagging property.
- T-1700 is suitable to improve viscosity of solventless paint, modified silicone sealing material and adhesive and for prevention of slump and stably performs well at wide range of temperature.
- T-1800 is suitable to improve viscosity of modified silicone sealing material and adhesive and for prevention of slump and has high effect and temporal stability.
- T-2000 is inert amide which has no functionality in the structure, thus it is suitable to improve viscosity of one component moisture curing polyurethane sealing material and adhesive and prevention of slump and displays excellent temporal stability.

A-S-A®	Appearance	Main Component	Non Volatile Matter (%)	Solvent	Addition (wt%)	Package
T-20SF	White Fine Powder	hydrogenated castor oil based	100	—	0.5~3.0	20kgBS
T-75F	White Fine Powder	hydrogenated castor oil + amide based	100	—	0.3~2.0	20kgBS
T-250F	White Fine Powder	fatty acid amide based	100	—	0.5~2.0	20kgBS
T-550F	White Fine Powder	fatty acid amide based	100	—	0.5~2.0	20kgBS
T-850F	White Fine Powder	fatty acid amide based	100	—	0.5~2.0	20kgBS
T-950F	White Fine Powder	fatty acid amide based	100	—	0.5~2.0	20kgBS
T-1700	White Fine Powder	fatty acid amide based	100	—	0.5~3.0	15kgBS
T-1800	White Fine Powder	fatty acid amide based	100	—	0.5~3.0	15kgBS
T-2000	White Fine Powder	fatty acid amide based	100	—	0.5~3.0	15kgBS

Paste Type

- This series is paste type in which network is structured by swelling the additives in solvent to make it activated. As network is already formed, they produce the effect as soon as lightly mixing by high-speed disperser. And the network relatively stable against heat helps thixotropic effect work from ambient temperature to high temperature. Also, this series is not selective for any specific resin and can be applied in various kinds of paints. T-300-20AK, T-300-10AK and T-300-10XC are xylene type and T-380-20BS is mineral spirits type.

A-S-A®	Appearance	Main Component	Non Volatile Matter (%)	Solvent	Addition (wt%)	Package
T-300-20AK	Light Yellow Paste	fatty acid amide based	20	Xylene, Alcohol	0.5~5.0	15gkCN
T-300-10AK	Light Yellow Paste	fatty acid amide based	10	Xylene, Alcohol	1.0~8.0	15gkCN
T-300-10XC	Light Yellow Paste	fatty acid amide based	10	Xylene, Alcohol	1.0~8.0	15gkCN
T-380-20X	Light Yellow Paste	fatty acid amide based	20	Xylene, Alcohol	0.5~5.0	15gkCN
T-380-20BS	Light Yellow Paste	fatty acid amide based	20	MS, Benzyl Alcohol	0.5~5.0	15gkCN
T-380-10BS	Light Yellow Paste	fatty acid amide based	10	MS, Benzyl Alcohol	1.0~8.0	15gkCN

Environmental Friendly Solvent Paste Type

- A-S-A TS series is thixotropic agent paste which aromatic solvent used in T series is removed from and is swelled by environment-friendly solvent inapplicable to PRTR. This series has TS-023 made easier to disperse by using ester acetate and TS-023, TS-823 and TS-813 which display equal thixotropy to conventional grades.

A-S-A®	Appearance	Main Component	Non Volatile Matter (%)	Solvent	Addition (wt%)	Package
TS-023	White~Light Yellow Paste	fatty acid amide based	20	Alicyclic Solvent, Alcohol	0.5~5.0	14kgCN
TS-021	White~Light Yellow Paste	fatty acid amide based	20	Acetic Ester, Alcohol	1.0~5.0	14kgCN
TS-823	White~Light Yellow Paste	fatty acid amide based	20	Alicyclic Solvent, Alcohol	0.5~5.0	14kgCN
TS-813	White~Light Yellow Paste	fatty acid amide based	10	Alicyclic Solvent, Alcohol	1.0~10.0	14kgCN

A-S-A®D Series, DS Series

Pigment Sedimentation / Caking-preventive Agent

- A-S-A D series disperses in vehicle in the form of colloid and pigments foaming flocculate structure gives slight thixotropy. It is effective to prevent hard cake and secondarily works for anti-sagging. This series is used for anti sagging of alkyd resin, NC lacquer, unsaturated polyester, aminoalkyd, and caking prevention of melamine acryl.

A-S-A®	Appearance	Main Component	Non Volatile Matter (%)	Solvent	Addition (wt%)	Package
D-10A	White Paste	oxidized polyethylene	25	Xylene	0.5~1.5	15kgCN
D-120	White Paste	oxidized polyethylene	20	Xylene	0.5~2.0	15kgCN
D-120-10	White Soft Paste	oxidized polyethylene	10	Xylene	1.0~4.0	15kgCN
D-1100	Light Yellow Liquid	oxidized polyethylene/polyamide	20	Xylene, Alcohol	0.5~2.0	15kgCN

Environment Friendly Solvent Type

- A-S-A DS series is agent for anit-sagging and hard-cake prevention in which aromatic solvent contained in D series is removed and environment friendly solvent which does not fall under PRTR regulation is used. DS-313 is floating paste type designed to be easy to disperse by using alicyclic solvent and acetic ester.

A-S-A®	Appearance	Main Component	Non Volatile Matter (%)	Solvent	Addition (wt%)	Package
DS-525	White Paste	oxidized polyethylene	20	Alicyclic Solvent	0.5~2.0	14kgCN
DS-313	Milky-White Floating Paste	oxidized polyethylene	10	Alicyclic Solvent, Acetic Ester	1.0~4.0	14kgCN

A-S-A®DF Series

Defoaming agent for Solvent

- A-S-A®DF series is defoaming agent for solvent based paint. This series effects well for material which normal defoaming agent does not such as specific silicone.

A-S-A®	Appearance	Main Component	Non Volatile Matter (%)	Solvent	Addition (wt%)	Package
DF-1	Colorless Transparent Liquid	Specially modified Silicone	40	Methyl Ethyl Ketone	0.02~0.3	15kgCN

A-S-A®TW Series

Pigment Sedimentation preventive Agent For Water

- A-S-A TW series is Pigment Sedimentation preventive Agent for Water Based Paint which has polyamide or polyester as active ingredient. TW-121 is soft paste while TW-122, 123 are liquid type easy to add. They also work to improve alignment of high brightness pigment and its brightness.

A-S-A®	Appearance	Main Component	Non Volatile Matter (%)	Solvent	Addition (wt%)	Package
TW-121	Light Yellow Brown Paste	Polyamide Polyester Salt	20	glycol ether, Water	0.5~3.0	17kgCN
TW-122	Light Yellow Liquid	Polyamide Amine Salt	20	glycol ether, Water	0.5~3.0	16kgCN
TW-124	Light Yellow Paste	Polyamide Amine Salt Oxidized polyethylene Wax	25	Water	0.3~2.5	17kgCN

A-S-A®R Series

- A-S-A R series gives slickness to coated film by floating to the surface. This series has characteristics that effect lasts longer than silicone type.

A-S-A®	Appearance	Main Component	Non Volatile Matter (%)	Solvent	Addition (wt%)	Package
R-200D	Yellow Paste	Fatty Acid Amide Based	50	Toluene	1.5~3.0	15kgCN
R-200NPA	Light Yellow Paste	Fatty Acid Amide Based	50	n-Propyl Alcohol	1.5~3.0	15kgCN

A-S-A®VF Series

- A-S-A VF series is 100% solid type of levelling agent for powder coatings which is made by powdering compounds of hydrogenated castor oil and acrylic polymer. With a little amount, it gives smoothness.

A-S-A®	Appearance	Main Component	Non Volatile Matter (%)	Solvent	Addition (wt%)	Package
VF-1	White~Light Yellow Powder	Hydrogenated Castor Oil based+ Acrylic Polymer	100	—	0.5~3.0	20kg Carton

