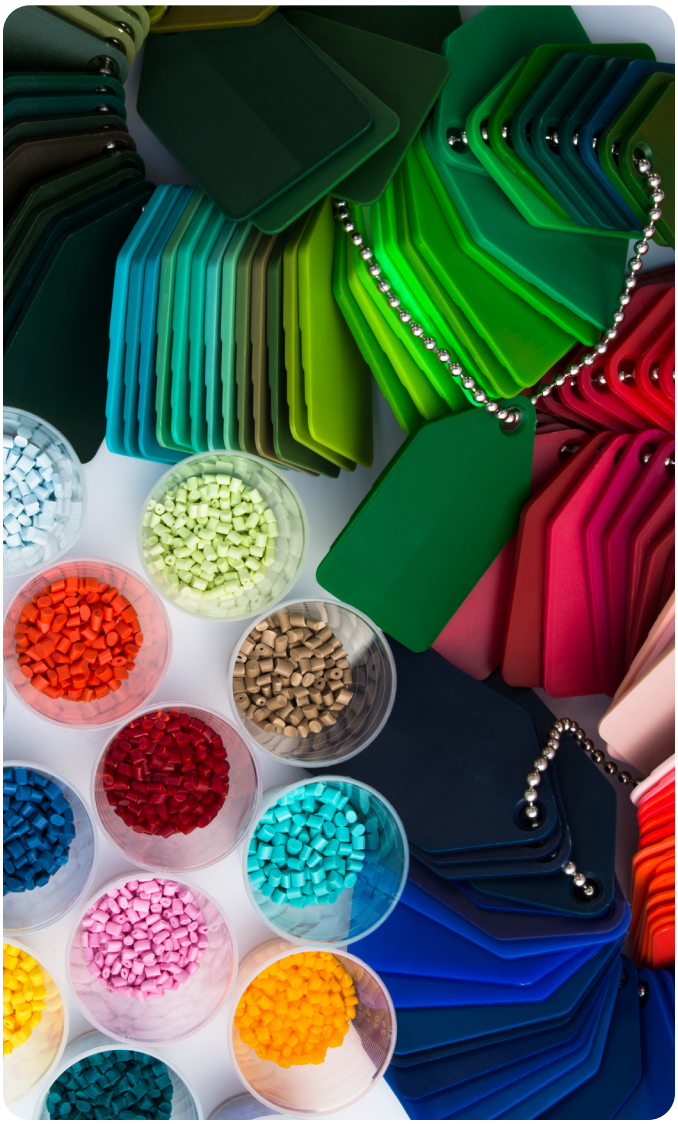
Solstice

A-C® PERFORMANCE ADDITIVES FOR COLOR CONCENTRATES







SOLSTICE ADVANCED MATERIALS' A-C POLYETHYLENE PRODUCT LINE FOR THE COLOR CONCENTRATES CONSISTS OF POLYETHYLENE HOMOPOLYMERS, ETHYLENE-VINYL ACETATE, ETHYLENE-ACRYLIC ACID AND OTHER COPOLYMERS, AND IONOMERS (METAL SALTS OF ACID FUNCTIONAL COPOLYMERS).

Due to their versatility and their compositions, A-C additives has shown a unique performance in almost all color concentrate systems applied in many polymers including polyethylene, polypropylene, polystyrene, polyamide, polycarbonate, ABS, PET, PBT, and SAN.

While A-C additives can enhance multiple performance attributes at once, they can also be tailored to solve specific application challenges. Selecting the right additive depends on the pigment types, the polymers used in the concentrate and finished product, and the capabilities of the customer's processing equipment.

FEATURES AND BENEFITS

- Improvement of the dispersion performance of hard to disperse organic and inorganic colorants and pigments
- Enhancement of the color strength, resulting in measurable economic benefits
- Enable high pigment loading at improved dispersion level
- Compatible with polyolefins and several other engineering thermoplastics
- Easy processing, higher production rates with major equipment.

SOLSTICE SPECIALTY ADDITIVES PRODUCT LIST

GRADE	TYPICAL PROPERTIES						
	TYPICAL PROPERTIES of A-C® POLYETHYLENES & COPOLYMERS	METTLER DROP POINT (ASTM D-3954)	HARDNESS DMM (ASTM D-5)	DENSITY G/CC (ASTM D-1505)	VISCOSITY CPS @ 140°C (BROOKFIELD)	ACID NUMBER MG KOH/G (ASTM D-1386)	PHYSICAL FORM
	HOMOPOLYMERS						
	A-C 6, 6A	106°C (223°F)	4.0	0.92	375	Nil	Prills, Powder
	A-C 8, 8A	113°C (235°F)	1.0	0.93	450	Nil	Prills, Powder
	A-C 9, 9A	115°C (239°F)	0.5	0.93	450	Nil	Prills, Powder
	A-C 16, 16A	102°C (216°F)	5.5	0.91	525	Nil	Prills, Powder
	A-C 617, 617A	101°C (214°F)	7.0	0.91	180	Nil	Prills, Powder
	OXIDIZED HOMOPOLYMERS						
	A-C 629, 629A	101°C (214°F)	5.5	0.93	200	15	Prills, Powder
	HIGH-DENSITY OXIDIZED HOMOPOLYMERS						
	A-C 307, 307A	140°C (284°F)	<0.5	0.98	85000[2]	7	Granule, Powder
	A-C 316, 316A	140°C (284°F)	<0.5	0.98	8500[2]	16	Granule, Powder
	A-C 392	138°C (280°F)	<0.5	0.99	4500[2]	30	Granule
	COPOLYMERS / ETHYLENE-ACRYLIC ACID						
	A-C 540, 540A	105°C (221°F)	2.0	0.93	575	40	Prills, Powder
	A-C 580	95°C (203°F)	4.0	0.94	650	75	Prills
	COPOLYMERS / ETHYLENE-VINYL ACETATE						
	A-C 400, 400A	92°C (198°F)	9.5	0.92	595	13% Vinyl Acetate	Prills, Powder

GRADE	TYPICAL PROPERTIES					
	ACLYN® LOW MOLECULAR WEIGHT IONOMERS	MELTING POINT[4]	CATION TYPE	ACID NUMBER MG KOH/G (ASTM D-1386)	VISCOSITY CPS @ 190°C (BROOKFIELD)	PHYSICAL FORM
	HOMOPOLYMERS					
	AClyn 295A	99°C (210°F)	Zn	Nil	4500	Granule, Powder

GRADE	TYPICAL PROPERTIES						
	MODIFIED OLEFIN PRODUCTS	METTLER DROP POINT (ASTM D-3954)	HARDNESS DMM (ASTM D-5)	DENSITY G/CC (ASTM D-1505)	VISCOSITY CPS @ 190°C (BROOKFIELD)	SAPONIFICATION NUMBER MG KOH/G	PHYSICAL FORM
	HOMOPOLYMERS						
	A-C 573A, 573P	106°C (223°F)	4.5	0.92	600 @140°C	5	Powder, Pastilles

(1) Measured at 150°C
(2) Determined by Differential Scanning Calorimetry.

ACLYN® IONOMERS AS DISPERSANTS

In addition to delivering excellent pigment dispersion and color development, A-C additives' low-to-medium melt viscosity and high thermal stability help minimize pigment degradation during processing. When paired with AClyn® ionomers, they provide enhanced dispersing efficiency and color strength.

AClyn ionomers offer higher viscosity and polarity than conventional additives. This makes them particularly effective across all stages of the dispersion process, including mixing, while A-C additives play a critical role in pigment wetting and distribution.

When processing challenges such as over-lubrication or difficult-to-disperse pigments—including phthalocyanines and quinacridones—arise, incorporating an ionomer can significantly improve dispersion performance and formulation robustness.

By selecting the right A-C additive—or combination of additives—formulators can achieve superior dispersion and lower Filter Pressure Value (FPV). Product selection depends on pigment chemistry, polymer compatibility, end-use requirements, and processing conditions. For polyolefin color concentrates, a blend of A-C 6A and A-C 629A often outperforms stearates and traditional wax systems in dispersing organic pigments. The increased polarity of the blend improves pigment affinity, resulting in better wetting and more uniform dispersion.

For titanium dioxide (TiO_2) and fluorescent pigments, A-C 573A (ethylene maleic anhydride) provides exceptional pigment affinity and significantly more effective dispersion than homopolymer or oxidized homopolymer additives. Likewise, polar pigments often benefit from polar additives such as oxidized polyethylene.

PRODUCT RANGE FOR MASTERBATCHES

GRADE	USE
PE HOMOPOLYMERS	
A-C 617A A-C 6A A-C 8A A-C 16A A-C 9A/F	Polyolefins, Styrenics, PVC
ETHYLENE VINYL-ACETATE COPOLYMERS	
A-C 400A	Polyolefins, Styrenics, PVC
MALEIC ANHYDRIDE GRAFTED COPOLYMERS	
A-C 573A A-C 597A	Polyolefins, Compatibilization, Fluorescent Masterbatch
IONOMERS	
AClyn 295A	Colour Enhancer, Compatibilization, Universal Masterbatch, Engineering Plastics

ADVANCING POLYMER PERFORMANCE THROUGH INNOVATION AND EXPERTISE

For decades, A-C Performance Additives have helped formulators improve pigment and filler dispersion, enhance compatibility, and achieve superior processing and surface properties in plastic color concentrates. With a broad portfolio of performance additives, Solstice provides the formulation flexibility, technical expertise, and global support needed to solve even the most demanding application challenges.

Whether your goal is better color development, improved manufacturing efficiency, or lower overall formulation costs, A-C additives deliver measurable performance where it matters most.

Get in touch with us to discover how A-C Performance Additives can help you achieve better dispersion, enhanced pigment performance, improved processability, and lower formulation costs.

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Driving Safety & Sustainability

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