



CARBOCURE™

CARBOSET®

PINNACLE™

SOLSPERSE®

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### PRODUCT SELECTION GUIDE

## Additives for Energy Curable Inks



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## Digital and Ink Jet



### Carboset® Colloidal Dispersions and Resins

Wide range of emulsions for water-based applications.

Product	Total Solids	Viscosity (cps)	pH	Tg	AN	Description / Suggested Uses
Carboset 1201	56	5700	8	33	200	Low molecular weight acrylic polymer for use as a dispersant or dispersing agent for both organic and inorganic pigments in water.
Carboset 514H	40	350	7	28	65	Colloidal dispersion that dries to a clear, water-resistant, non-tacky thermoplastic film with excellent adhesion to a variety of metal and plastic substrates.
Carboset 525	100	—	—	37	80	Solid all-acrylic resin soluble in alkaline water and many organic solvents that displays excellent adhesion to a variety of substrates, including metals, plastic and wood. Can be utilized in permanent water-resistant coatings.
Carboset 526	100	—	—	70	100	Solid all-acrylic resin soluble in alkaline water and many organic solvents that displays excellent adhesion to a variety of substrates, including metals, plastic and wood. Can be utilized in permanent water-resistant coatings.
Carboset 527	100	—	—	50	80	Solid all-acrylic resin soluble in alkaline water that displays excellent adhesion to a variety of substrates, including metals, plastic and wood. Can be utilized in block-resistant coatings. Can be crosslinked with epoxy, melamines or other cross-linking resins to yield hard, tough, glossy permanent films.

### Solsperse® Hyperdispersants

Provide increased pigment concentration, improved rheology and stability, and optimal color development.

Product	% Solids	Solvents	Description Suggested Uses
Solsperse 12000	100	—	Used with polymeric dispersant to stabilize organic blue, violet and black pigments in polar solvent-based inks.
Solsperse 13300	50	Shellsol D40	Dispersion of organic pigments and carbon black in aromatic-free, aliphatic solvent-based inks.
Solsperse 20000	100	—	Alcohol and glycol ether soluble dispersant for metallics, organic pigments and carbon black.
Solsperse 22000	100	—	Used with polymeric dispersant to stabilize organic yellow, orange and red pigments in solvent and UV inks.
Solsperse 27000	100	—	Nonionic water soluble dispersant for carbon black and organic pigments in resin containing ink formulations.
Solsperse 32000	100	—	Monomer and oligomer soluble dispersant for organic pigments and carbon black in solvent and UV inks.
Solsperse 34750	50	Ethyl Acetate	Dispersion of organic pigments and carbon black in acetate based inks.
Solsperse 39000	100	—	First choice, universal dispersant for use in solvent and UV inks
Solsperse 41000	100	—	Monomer and oligomer soluble dispersant for titanium dioxide in solvent and UV inks.
Solsperse 46000	50	Water	Water soluble, low foaming polymeric dispersant for resin-free dispersion of organic pigments.
Solsperse 5000	100	—	Used with polymeric dispersant to stabilize organic blue, violet and black pigments in solvent and UV inks.



# Energy Curable

## Carbocure™ Wax Additives and Dispersions

Energy curable ink additives that improve both press performance and the appearance of the printed product.

Product	Polymer/Additives	Non-Volatiles (%)	Vehicle or Carrier	Description / Suggested Uses
Carbocure 608	Polyethylene	98-100	Fatty Acid Ester	Provides good rub resistance and slip for energy curable systems. Contains large particle size wax and is effective in porous and abrasive substrates.
Carbocure 645	Polyethylene	98-100	Monomer/Oligomer Blend	Designed to provide rub resistance and slip for energy curing systems.
Carbocure 646	Anti-Mist	53-57	—	Anti-mist additive for energy curable systems.
Carbocure 647	PTFE Compound	98-100	Monomer/Oligomer Blend	Designed to provide rub resistance and slip for energy curing systems.
Carbocure 649	Polyethylene	98-100	Monomer/Oligomer Blend	Designed to provide rub resistance and slip for energy curing systems.
Carbocure 651	Matting Compound	89-100	—	Formulated to reduce picking and piling in all energy curable lithographic inks.
Carbocure 652	Matting Compound	98-100	Monomer	Designed to provide matting, rub resistance and slip for energy curable inks and coatings.
Carbocure 655	Natural Wax	98-100	Monomer	Provides low COF and good rub resistance while remaining suspended in the coating for longer periods than conventional wax dispersions.
Carbocure 660	Microcrystalline Compound	98-100	Fatty Acid Ester	Designed to provide rub resistance and slip for energy curing systems.
Carbocure 750	Rheology Modifier	48-52	—	Replacement for dry clay and silica additives in all energy curable lithographic inks.
Carbocure 920	Texturing Dispersion	96-100	Monomer/Oligomer Blend	Provides a textured surface when added to energy curable overcoats (18-20 microns).
Carbocure 930	Texturing Dispersion	96-100	Monomer/Oligomer Blend	Provides a textured surface when added to energy curable overcoats (28-32 microns).

## Solsperse® Hyperdispersants

Provide increased pigment concentration, improved rheology and stability, and optimal color development.

Product	Additive	Non-Volatiles (%)	Actives (%)	Vehicle or Carrier	Description / Suggested Uses
Solsperse 22000	Synergist	100	100	—	Used with polymeric dispersant to stabilize organic yellow and red pigments.
Solsperse 32000	Polymeric Dispersant	100	100	—	Monomer and oligomer soluble dispersant for organic pigments and carbon black.
Solsperse 36000	Polymeric Dispersant	100	100	—	Monomer and oligomer soluble dispersant for inorganic pigments.
Solsperse 39000	Polymeric Dispersant	100	100	—	Monomer and oligomer soluble dispersant for organic and inorganic pigments.
Solsperse 41000	Polymeric Dispersant	100	100	—	Monomer and oligomer soluble dispersant for titanium dioxide and silicas.
Solsperse 5000	Synergist	100	100	—	Used with polymeric dispersant to stabilize organic blue, violet and blacks.
Solsperse 71000	Polymeric Dispersant	100	100	—	Monomer and oligomer soluble dispersant for stabilizing silica matting agents.
Solsperse X300	Reactive Dispersant	100	100	—	Monomer and oligomer crosslinkable dispersant for dispersion of organics and black.



# Energy Curable *(continued)*

<b>Pinnacle™ Micronized Powders</b>		<i>Allow ink formulators to choose from a wide selection of natural and synthetic polymers that can be micronized to very specific particle sizes.</i>			
<b>Product</b>	<b>Polymer Type</b>	<b>FDA Status 21 CFR</b>	<b>Average Particle Size (um) max</b>		<b>Description / Suggested Uses</b>
			<b>Dv 50</b>	<b>Dv 90</b>	
Pinnacle 1534	Polyethylene / Carnauba	175.300	8	18.5	Fine particle polyethylene/carnauba that improves the surface properties of energy curable inks.
Pinnacle 1555	Polyethylene	175.300 176.170 176.180	4	14 (Dv 98)	Narrow particle size distribution PE provides consistent rub and slip properties; recommended for sheetfed inks.
Pinnacle 1556	Polyethylene	175.105 177.152	6	21 (Dv 98)	Larger particle size version of 1555; general-purpose PE wax that provides consistent rub and slip properties in sheetfed, heatset web, flexographic and gravure inks.
Pinnacle 1610	Oxidized Polyethylene	—	12	24	Fine grind PE wax that promotes rub resistance in sheetfed offset, heatset web offset, flexographic and gravure inks.
Pinnacle 1625	Oxidized Polyethylene	175.105 176.170* 175.300* 176.180 177.1210 177.1620	9.5	24 (Dv 98)	Oxidized PE suitable for use in flexographic and gravure printing inks.
Pinnacle 1955	Carnauba	175.320 184.1978	4.5	12 (Dv 98)	Very fine particle size carnauba wax providing excellent slip and scratch resistance.
Pinnacle 1994	Modified Polyethylene	—	9	29 (Dv 98)	Fine grind polypropylene wax that promotes burnishing resistance in sheetfed, heatset web, flexographic and gravure inks.
Pinnacle 1995	Modified Polyethylene	175.300 176.170 176.180	6	14	Modified polypropylene wax that improves rub resistance, reduces COF and controls gloss in sheetfed and heatset offset inks.
Pinnacle 1996	Polyethylene	175.300	9	16	Polypropylene wax with an optimized particle size distribution, providing superior scratch resistance in sheetfed and heatset offset, flexographic, gravure and energy curable inks.
Pinnacle 2510	Amide	175.300 181.280	9	22	Low-amine, high melt point, amorphous, amide wax that promotes slip, rub resistance and gloss control in flexographic and gravure inks; promotes non-yellowing characteristics.
Pinnacle 2530	Erucamide	175.105 175.300 176.180	8	16	Fatty amide wax that promotes slip, rub resistance and antiblocking in flexographic and gravure inks.
Pinnacle 6003	PE/PTFE Blend	175.300	6	13	Fine grind PE/PTFE blend that promotes rub (Dv 98) resistance in lithographic offset, flexographic, gravure and energy curable inks.
Pinnacle 6007	PTFE/Modified Polyethylene	—	6	14	Hydrophilic PTFE-modified PE wax that provides improved rub resistance and reduced slip in flexographic and gravure inks.
Pinnacle 9001	Virgin PTFE	175.300	4.5	10 (Dv 98)	Premium PTFE powder for use in high quality inks systems.
Pinnacle 9002	Virgin PTFE	175.300	10	18	Premium large particle PTFE powder for use in uncoated and abrasive stocks.
Pinnacle 9008	PTFE	175.300	4	8	PTFE powder suitable for all inks systems.
Pinnacle 9009	Micronized PTFE	—	4.5	—	Suitable for all inks requiring additional abrasion resistance and slip properties.

\* See technical data sheets for specific information.



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For more information on Lubrizol's complete line of products for the printing inks and coatings industry, contact your Lubrizol representative or call us at **1.800.380.5397**.

Information is also available on-line at  
[www.lubrizolcoatings.com](http://www.lubrizolcoatings.com).



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