

DISPERSANTS FOR SPECIALTY PAPER APPLICATIONS

Lubrizon dispersant technologies enhance engineered papers by improving the sheet formation and drainage rates of difficult-to-disperse fibers or high solids furnishes. **Solsperser™**, **Solplus™** and **Carbosperer™** technologies can reduce mineral filled coating viscosity while maintaining high solids. Better quality, lower energy consumption, faster speed – these are benefits of using the right dispersant for engineered paper applications.

Dispersant selection is dependent on the functionality of the pigment or fiber and the pH of the application. Dispersion stability is optimized when the functional anchor group of the dispersant is matched to the surface of the pigment or fiber. In water-borne applications, pH is another important consideration. Pre-neutralization of acidic or basic dispersants (or neutralization in-situ) will improve overall compatibility with emulsion and solution polymers.

PIGMENT/FIBER TYPE

Neutral to Basic Surface

Alumina treated TiO₂
 Alumina and ATH
 Calcium Carbonate
 Talc & other basic silicates
 Diatomaceous Silica
 Iron oxides
 Laked organic pigments
 Alkaline carbon blacks

Acidic to Neutral Surface

Silica treated TiO₂
 Silica & silica matting agents
 Hydrous Kaolin
 Ceramic Fibers
 Organic pigments
 Oxidized carbon blacks
 Neutral carbon blacks

DISPERSANT

Acidic Anchor

Solsperser™ 41090, Solsperser™ 45000,
 Carbosperer™ K-XP228, Solplus™ D541

Solsperser™ 40000, Carbosperer™ K-7058N,
 Solsperser™ 43000, Solplus™ D570

System pH

< 7

≥ 7

Basic or Neutral Anchor

Solsperser™ 27000,
 Carbosperer™ K-XP228

Solsperser™ 20000, Solsperser™ 27000,
 Solsperser™ 43000, Solplus™ D570

WHAT WE ADD MAKES THE DIFFERENCE.™

- HIGH LOADING
- LOW VISCOSITY
- BRIGHT COLORS
- LOW FOAM
- NO COSOLVENTS
- APEO-FREE*
- FORMALDEHYDE-FREE*

*Ingredients not intentionally contained in the composition or used in manufacture.



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PROPERTIES

PRODUCT	SOLIDS (%)	pH	CHARGE	DESCRIPTION
Carbospense™ K-7058N	45	7	A	Partially neutralized sodium polyacrylate
Carbospense™ K-XP228	55	4.5	N	Multifunctional, particularly effective with silicates
Solsperse™ 20000	100	9	C	Amine functional, for high solids dispersion of acidic pigments
Solsperse™ 27000	100	7	N	Nonionic, good compatibility with emulsion polymers and synthetic thickeners
Solsperse™ 40000	84	7	A	Partially neutralized acid functional, for pH ≥ 7
Solsperse™ 41090	90	3	A	Un-neutralized Solsperse™ 40000, for pH < 7
Solsperse™ 43000	50	7	A	Partially neutralized acid functional universal dispersant, for pH ≥ 7
Solsperse™ 45000	100	2	A	Acid functional for high solids dispersion of basic pigments
Solplus™ D541	100	2	A	Lower acid value than Solsperse™ 45000, for dispersion of basic pigments
Solplus™ D570	100	7	A	Partially neutralized carboxy functional, universal, good emulsion compatibility

A = Anionic, C= Cationic, N = Nonionic
 Typical properties, not specification



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