

# DISPERSANTS FOR SPECIALTY PAPER APPLICATIONS

Lubrizol 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 Carbosperser™ 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.

## Applications

- 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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Pigment/Fiber Type	
Neutral to Basic Surface	Acidic to Neutral Surface
Alumina treated TiO <sub>2</sub>	Silica treated TiO <sub>2</sub>
Alumina and ATH, calcium carbonate, talc & other basic silicates, diatomaceous silica, iron oxides	Silica & silica matting agents, hydrous kaolin, ceramic fiber
Laked organic pigments, alkaline carbon blacks	Organic pigments, oxidized carbon blacks, neutral carbon blacks

Dispersant		
Acidic Anchor	System pH	Basic or Neutral Anchor
Solsperser™ 41090, Solsperser™ 45000, Carbosperser™ K-7058, Solsperser™ W100	< 7	Solsperser™ 27000, Solsperser™ W150
Solsperser™ 40000, Carbosperser™ K-7058N, Solsperser™ W430, Carbosperser™ K-766	≥ 7	Solsperser™ 20000, Solsperser™ 27000, Solsperser™ W430

**Lubrizol**

**Performance Coatings**



## Dispersants for Specialty Paper Applications

### Properties

Products	Solids (%)	pH	Charge	Description
Carbospense™ K-7058N	45	7	A	Neutralized sodium polyacrylate
Carbospense™ K-7058	50	2.5	A	Partially neutralized Carbospense™ K-7058N
Carbospense™ K-766	40	7	A	Neutralized sodium polymethacrylic acid polymer
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	7.5	A	Neutralized acid functional, for pH ≥ 7
Solsperse™ 41090	90	3	A	Un-neutralized Solsperse™ 40000, for pH < 7
Solsperse™ W430	50	8.5	A	Neutralized acid functional universal dispersant, for pH ≥ 7
Solsperse™ 45000	100	2	A	Acid functional for high solids dispersion of basic pigments
Solsperse™ W100	40	4.5	A	High performance acid functional universal dispersant
Solsperse™ W150	100	5	A	Broadly compatible acid functional 100% active, biocide-free dispersant

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



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22-2298