

Solsperse™ Hyperdispersants for Water-Borne Systems

Aqueous Dispersant Technology

Lubrizol offers a wide range of Solsperse™ Hyperdispersants which can enable formulators to develop high quality dispersions of a diverse range of pigments, fillers, and other active particles. There are a vast number of materials which formulators might want to disperse into water, and choosing the right dispersant is critical to achieving an optimal dispersion.

Description

Dispersants can improve milling efficiency, meaning less time and energy is needed to get pigments to the required particle size. Solsperse Hyperdispersants can reduce the viscosity of dispersions, resulting in better flow or allowing the formulator to increase the pigment loading in the grind stage.

The correct choice of dispersant will properly stabilize the particles, resulting in formulations which offer particle size and viscosity stability under the most challenging of conditions. More stable dispersions can also be made to be compatible with a wide variety of coating chemistries, meaning that one dispersion can be used across a range of base paints.

When dealing with pigments, dispersants enable the user to achieve the best color development. Colors appear stronger, cleaner and brighter. Transparency or opacity are enhanced. Jetness of carbon blacks is maximized.

Background

Lubrizol offers a range of different Solsperse products which can be used according to the formulators needs. Multi-functional anchoring technology has enabled the development of products which will disperse the widest range of pigments and particles. These products are ideal to help minimize the number of dispersants which would need to be held in inventory. In cases where the highest performance levels are required, we can offer more specialized products, targeted to disperse the more challenging particles. We also consider the other components in the formulation. Our products enable formulations to be made without the use of grind resins. Whilst still achieving excellent dispersion and stability, this prevents the need to carry potentially incompatible materials into the finished coating. If the use of grind resins is preferred, then the use of a single anchor/single chain, faster wetting dispersant can enhance the effectiveness of the resin rather than compete with it.

Technical Performance

PRODUCT	DESCRIPTION
Solperse™ W100	Broadest use dispersant. 15-20% lower dosage, and lower water sensitivity make this an excellent product to start with.
Solperse™ W150	100% active product, which offers excellent cost-in-use benefit. Broadly compatible, especially in higher cosolvent systems. Biocide free.
Solperse™ W210	Designed to achieve fastest dispersion and highest jetness with carbon black, also effective on premium organic pigments.
Solperse™ W320	Developed primarily for transparent iron oxides and other inorganic pigments and fillers.
Solperse™ W430	Effective on a wide range of pigments, developed for use in cost sensitive areas such as architectural coatings, also offers excellent stain resistance.
Solperse™ W75	Targeted particularly for the dispersion of flame-retardant additives for use in intumescent coatings , such as APP, Melamine, etc.
Solperse™ WV400	Recommended for high performance organic pigments, especially where nano-dispersion is required.

	% Active	pH	Organic Pigments	Carbon Black	Titanium Dioxide	Inorganic Pigments	Silica	Resin Free	Resin Containing
Solperse™ W100	40%	5	●	●	●	●	●	●	●
Solperse™ W150	100%	5	●	●		●		●	●
Solperse™ W210	100%	7	●	●				●	●
Solperse™ W320	40%	4			●	●	●	●	●
Solperse™ W430	50%	8	●	●		●		●	
Solperse™ W75	100%	11				●		●	●
Solperse™ WV400	40%	7	●	●				●	

All dispersants not supplied at 100% active are dissolved in water.

All products are APEO-free and NMP free



Performance Coatings

www.lubrizol.com/coatings

Lubrizol Advanced Materials, Inc. ("Lubrizol") hopes that you have found the information provided helpful, but you are cautioned that this material, including any prototype formulas, is for informational purposes only and you are solely responsible for making your own assessment of appropriate use of the information. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAWS, LUBRIZOL MAKES NO REPRESENTATIONS, GUARANTEES, OR WARRANTIES (WHETHER EXPRESS, IMPLIED, STATUTORY, OR OTHERWISE), INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR REGARDING THE COMPLETENESS, ACCURACY, OR TIMELINESS OF ANY INFORMATION. Lubrizol does not guarantee how the materials referenced herein will perform in combination with other substances, in any methods, conditions, or processes, with any equipment, or in non-laboratory environments. BEFORE COMMERCIALIZATION OF ANY PRODUCT CONTAINING THESE MATERIALS, YOU SHOULD THOROUGHLY TEST SUCH PRODUCT, INCLUDING HOW THE PRODUCT IS PACKAGED, TO DETERMINE ITS PERFORMANCE, EFFICACY, AND SAFETY. You are solely responsible for the performance, efficacy, and safety of any products you manufacture. Lubrizol shall not be liable, and you shall assume all risk and responsibility for, any use or handling of any material. Any claims may not be approved in all jurisdictions. Any entity making claims related to these products is responsible for complying with local laws and regulations. Nothing contained herein is to be considered as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner, and it is your sole responsibility to determine if any issues related to patent infringement of any component or combination of components relating to the information provided exists. You acknowledge and agree that you are using the information provided herein at your own risk. If you are dissatisfied with the information provided by Lubrizol, your exclusive remedy shall be to not use the information.

Trademarks owned by The Lubrizol Corporation or its affiliates. ©The Lubrizol Corporation 2022. All Rights Reserved.