



# Flexisperse™ 318

Encapsulating Anti-Soiling dispersant polymer

## Overview

- Anionic dispersant polymer
- Produces advanced cleaning formulations with Anti-Soiling properties
- Encapsulates soil and enhances soil pick-up during vacuuming
- Unique anionic polymer dispersant for a wide range of soil removal and soiling protection formulations
- Eliminates rapid resoiling when combined with conventional surfactants
- Dries to a brittle crystalline residue
- Provides Anti-Soil redeposition properties
- Outstanding dispersant for aqueous systems
- Provides chelating properties
- Very low moisture regain, hydrophobic nature
- This product has been used in at least one formulation that has received Safer Choice approval
- WERCS ID number: WPS1284439
- WERCS Validation number: WPS1284439

## Applications

- Carpet and Upholstery spot removers
- Hot water extraction carpet cleaners
- Traffic lane cleaner
- Low moisture carpet and upholstery cleaners
- Odor eliminators with soiling protection

## Technical Information

Flexisperse 318 is a unique anionic polymer dispersant for use in a wide range of advanced soil removal and soiling protection formulations.

Flexisperse 318 eliminates rapid resoil problems. Many common carpet and fabric cleaning formulations contain detergents that leave soil attracting residues on the cleaned textile. While these formulations effectively clean, they can cause rapid resoiling. For example, many common spot removers will appear to completely remove a spot or stain from a textile. In many cases, the spot will reappear within a short period of time. This troublesome resoiling effect is caused by the residual detergent left behind that attracts oily and particulate soil. The stain did not come back, but rather a new soil induced stain reappeared due to the tacky, oily soil attracting detergent residue left behind.

Flexisperse 318 helps prevent fabric damage and reduced fabric stain and soil protection. Consumers and professionals alike often use common cleaning formulations in excess of recommended levels to increase cleaning performance. This overuse often leads to rapid resoil, possible damage to the fabric, and to reduced stain and soil protection from the original mill applied treatment. Overuse of a Flexisperse 318 based cleaning formulation actually helps prevent fabric damage and reduced fabric stain and soil protection by increasing the amount of resoil protection, thus eliminating the liability associated with overuse while bringing additional value to the process.

## Typical Properties

PROPERTY	VALUE
Appearance	Clear to hazy, pale amber liquid
Odor	Mild
Ionic character	Anionic
Water solubility	Soluble
pH (as is)	7.5 to 8.5
Density@25°C, g/ml	1.09±0.02
Boiling Point	100°C
Flash point	None (aqueous)
Storage	Stable to freezing
Shelf life	12 months

## Packaging and Handling

Flexisperse 318 is available in:  
275 gallon totes (Net Wt. 2400 lbs)  
55 gallon plastic drums (Net Wt. 480 lbs)  
5 gallon plastic pails (Net Wt. 40 lbs)

Refer to the Safety Data Sheet (SDS) for information on the safe use, handling, and disposal of this product.

DOT Classification: Non-Regulated

Whether you're looking for a replacement product or an ingredient for a specific attribute, give us a call. We can provide assistance based upon your particular formulation requirements and composition; please feel free to contact us.

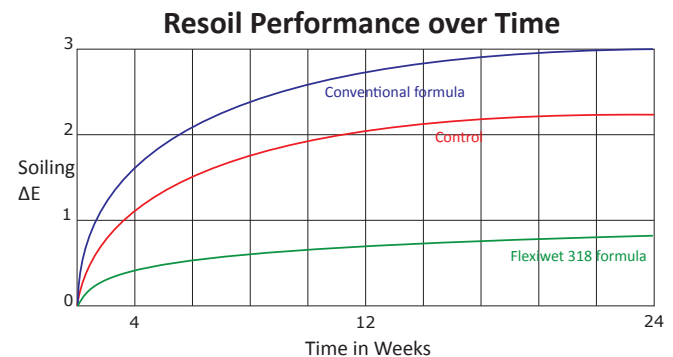
*Please refer to back page for important information*

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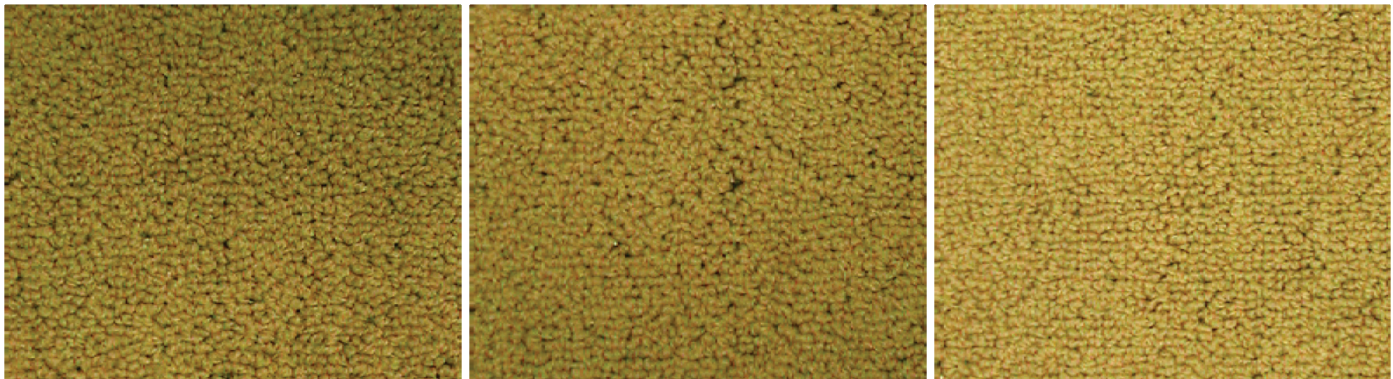
## Field Soiling Study

By encapsulating and embrittling tacky surfactants and residual soils, Flexisperse 318 continues to enhance cleaning and soil release long after the actual cleaning step. Each time the area is vacuumed, encapsulated soil and surfactant residues are removed along with the Flexisperse 318 crystalline structures. By enhancing the efficiency of routine vacuuming, the frequency of cleaning is reduced. Flexisperse 318 adds value to the surfactant system, cleaning efficiency, and labor in one economical step.

A soiling study comparing formulas with and without Flexisperse 318 was conducted. In this study, two formulas were prepared using identical types and amounts of surfactants. The conventional cleaner contained no Flexisperse 318. The other formulation contained enough Flexisperse 318 to embrittle the surfactant component. The following is a graphic representation of how well each formula performed in terms of resoil on an actual carpeted floor. The floor was soiled by normal foot traffic. The Flexisperse 318 formula was applied using a low moisture system. The conventional chemistry was applied using hot water extraction. A control section was allowed to soil without cleaning. Measurements were taken to determine the degree of soil present at regular intervals over the length of the study. The formula with Flexisperse 318 remained much cleaner over time with regular vacuuming. The conventional formula actually soiled faster and more severely than the control. Flexisperse 318 eliminates this rapid resoil effect, reduces the frequency of cleaning and protects the carpet from soil.



## Laboratory Demonstration



**Conventional Formula**

**Uncleaned Control**

**Flexisperse 318 Formula**

Prepare two carpet cleaning formulations. In the first formula incorporate two to four parts Flexisperse 318 to one part of 100% active surfactant. This ratio will vary depending on the characteristics of the surfactant in the formulation. In the second formula, using the same amount of surfactant, replace the Flexisperse 318 with water. Using these two formulas, uniformly treat identical carpet samples with each respective formula using equal dilutions and amounts per square inch. Include an untreated control sample in each trial. Allow each sample to air dry for 24 hours. Use ASTM Test Method 6540 to soil the samples and compare results. The photos above demonstrate the dramatic difference in soiling performance when Flexisperse 318 is incorporated into the detergent package.

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