

Versatile rheology modifier with outstanding thickening properties

INTENDED USE

Rheological additive

BENEFITS AT A GLANCE

- Superior hydrophilic thickening agent
- Thickens challenging surfactant formulations (low active matter, sulfate-free systems) in a highly effective way
- water soluble
- cold processable
- enables Newtonian flow behavior
- stable over a wide pH range (4.5 – 8.0)
- preservative-free, solvent-free

INCI (PCPC NAME)

PEG-200 Glyceryl Stearate

CHEMICAL AND PHYSICAL PROPERTIES (NOT PART OF SPECIFICATIONS)

Form	White to ivory pellets
Melting point	~50°C
Active matter	> 99%

PROPERTIES

ANTIL® 500 Pellets is a superior thickening agent for aqueous surfactant based formulations. Its extraordinary thickening efficiency and flexibility facilitate the development of innovative cleansing formulations.

ANTIL® 500 Pellets is especially suitable for surfactant systems with low active level (Fig.1) and mild cleansing formulations based on sulfate-free surfactants (Fig. 1).

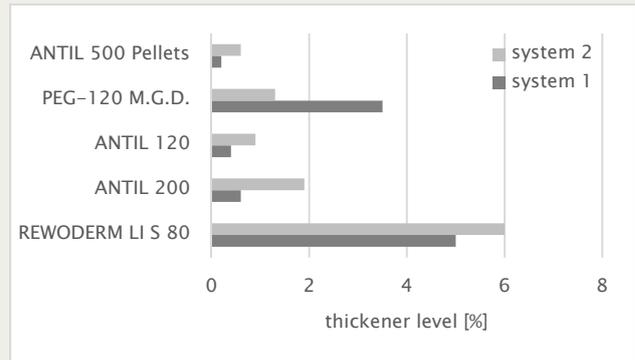


Figure 1: thickening efficacy

system 1 – low active level: 5% SLES / 2% CAPB / 1.5% NaCl
 system 2– sulfate-free: 4.8% Sodium Cocoamphoacetate / 4.8% CAPB / 3.6% Disodium Lauryl Sulfosuccinate PEG-120 M.G.D. = PEG-120 Methyl Glucose Dioleate (benchmark)

ANTIL® 500 Pellets shows a strong salt response in SLES/CAPB based systems (Fig. 2). In combination with NaCl, ANTIL® 500 Pellets enables a more significant reduction of the active surfactant content of SLES/CAPB based systems than current market standards.

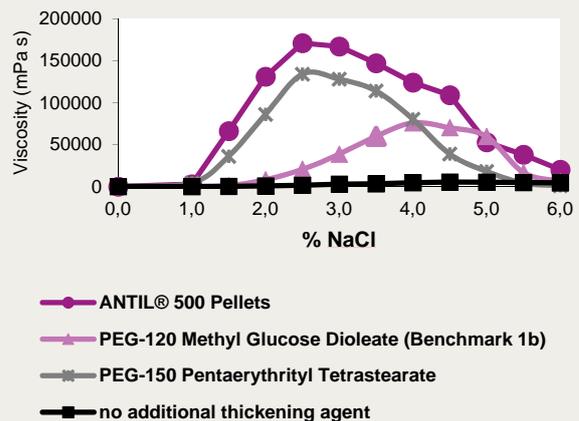


Figure 2: salt response in 5% Sodium Laureth Sulfate / 2% Cocamidopropyl Betaine / 0.5% thickener

The use of ANTIL® 500 Pellets as main rheological additive provides surfactant systems with a Newtonian flow behavior and a rich formulation texture.

APPLICATION

ANTIL® 500 Pellets is non-ionic and can be used with common anionic, cationic, amphoteric or non-ionic surfactants. It is suitable for various applications, such as liquid soaps, shower gels, hair shampoos and foam baths.

ANTIL® 500 Pellets has almost no impact on foaming.

PROCESSING HINTS

ANTIL® 500 Pellets is easy to handle and cold processable. It is soluble in water or surfactant systems and slight heating accelerates the production process.

When using ANTIL® 500 Pellets at the end of the production process for final adjustment of the viscosity, control measurements are not possible before the thickener is dissolved homogeneously.

A liquid premix of ANTIL® 500 Pellets can optionally be prepared for easy and fast cold-processing. It can either be dissolved in water, or blended with a hydrophilic emollient and water.

	Blend A	Blend B	Aqueous solution
ANTIL® 500 Pellets	50%	40%	12%
PEG-7 Glyceryl Cocoate or PEG-6 Caprylic/ Capric Glyceride	25%	20%	
Water	25%	40%	88%

Preparation of blends:

Mix all ingredients. Heat up to 60°C while stirring. Continue stirring until blend is homogeneous.

Preparation of aqueous solution:

Heat water to 60°C. Add ANTIL® 500 Pellets while stirring. Continue stirring until blend is homogeneous.

Viscosities of premixes: 3000 – 8000 mPas (Brookfield).

STORAGE

Storage temperature should not exceed 40°C (melting point of the pellets: ~50°C).

HAZARDOUS GOODS CLASSIFICATION

Information concerning

- classification and labelling according to regulations for transport and for dangerous substances
- protective measures for storage and handling
- measures in case of accidents and fires
- toxicity and ecological effects

is given in our material safety data sheets.

GUIDELINE FORMULATIONS

Mild shower gel, sulfate-free NN 118

TEGOSOFT® LSE 65 K Soft (Sucrose Cocoate)	2.9%
TEGOSOFT® GC (PEG-7 Glyceryl Cocoate)	2.0%
Lauryl Glucoside, 50%	12.5%
TEGO® Betain F 50 (Cocamidopropyl Betaine)	12.5%
REWOTERIC® AM C (Sodium Cocoamphoacetate)	11.0%
Citric Acid (30%)	2.2%
Water	ad 100.0%
TEGO® Betain 810 (Capyl/Capramidopropyl Betaine)	4.0%
ANTIL® 500 Pellets	1.0%
Preservative, Perfume	q.s.

Preparation:

Blend ingredients in the given order.

Remarks: pH=6; Viscosity (Brookfield, 25 °C): 4200 mPas

Clear body wash for smooth skin SV 271/6

Sodium Laureth Sulfate (28%)	30.0%
ANTIL® Soft SC (Sorbitan Sesquicaprylate)	0.5%
ABIL® B 8832 (Bis-PEG/PPG-20/20 Dimethicone)	0.3%
Water	ad 100.0%
Citric Acid, 30%	0.5%
REWOTERIC® AM C (Sodium Cocoamphoacetate)	10.0%
ANTIL® 500 Pellets	1.0%
Preservative, Perfume	q.s.

Preparation:

Blend ingredients in the given order.

Remarks: pH=5.5; Viscosity (Brookfield, 25 °C): 3500 mPas

Disclaimer

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