

## Technical Information

## ANTIL® 120 Plus MB / ANTIL® 127 MB

## Very effective thickening agents

## Intended use

Rheological additive

## Benefits at a glance

- Excellent thickening properties
- Water soluble
- Can be processed hot or cold in every production step
- Stable over a wide pH range (4.5 – 9.0)
- Preservative-free

## INCI (PCPC Name)

PEG-120 Methyl Glucose Dioleate

## Chemical and physical properties (not part of specifications)

	ANTIL® 120 Plus MB	ANTIL® 127 MB
Form	Solid, pellets	Liquid, highly viscous
Active matter	> 99%	> 74%

## Properties

- ANTIL® 120 Plus MB and ANTIL® 127 MB are very efficient, sugar-based thickening agents for aqueous surfactant systems. They are suitable for many formulations, e.g. hair shampoo, shower gel, foam bath, liquid soap or hand wash paste.
- ANTIL® 120 Plus MB and ANTIL® 127 MB show high stability against hydrolysis. They allow the production of surfactant formulations over a wide pH range and show a good efficiency, even if combined with surfactants which are difficult to thicken (e. g. sulfosuccinates).
- ANTIL® 120 Plus MB and ANTIL® 127 MB are capable of reducing the irritation potential of surfactants and improving the mildness of formulations. Both products mostly show a synergistic effect when combined with non-ionic surfactants with a low molecular weight, e. g. with ethoxylated fatty alcohols, fatty acid polyethylene glycol esters, ethoxylated fatty acids and fatty acid esters of glycol, glycerol or polyglycerol.

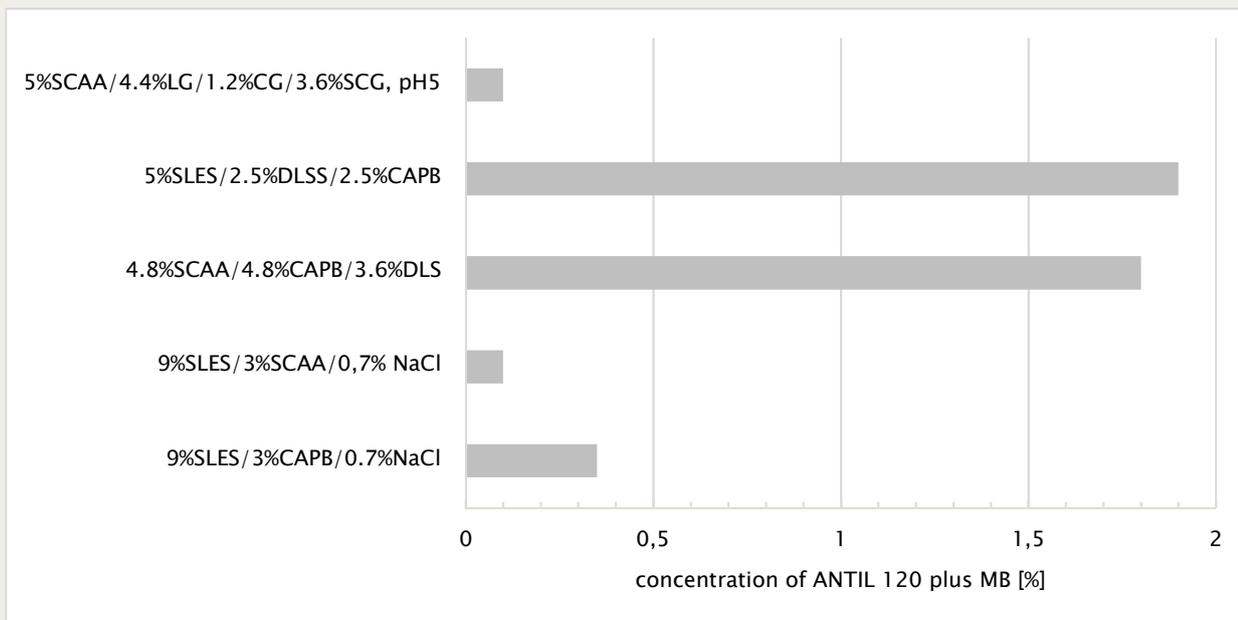
## Application

ANTIL® 120 Plus MB and ANTIL® 127 MB are non-ionic. They can be used with common anionic, cationic, amphoteric or non-ionic surfactants.

Using mainly ANTIL® 120 Plus MB or ANTIL® 127 MB as thickening agent, surfactant formulations with a nearly Newtonian flow behaviour are achieved. Therefore, formulations are provided with a rich, gel-like appearance. Figure 1 shows the amount of ANTIL® 120 Plus MB necessary to achieve a viscosity of approximately 3 500 mPas in several surfactant combinations. The indicated values are surfactant active matter.

## Preparation

The liquid ANTIL® 127 MB and the pelletized ANTIL® 120 Plus MB are easy to handle and they are cold processable. Both products are soluble in water or surfactant systems. Slight heating accelerates the production process. When using ANTIL® 120 Plus MB or ANTIL® 127 MB at the end of the production process for final adjustment of the viscosity, control measurements are not possible before the thickener is dissolved homogeneously.



**Figure 1: amount of ANTIL® 120 Plus MB to thicken various surfactant systems up to ~ 3 500 mPas**

**SCAA** = Sodium Cocoamphoacetate (REWOTERIC® AM C); **CG** = Coco Glucoside; **LG** = Lauryl Glucoside; **SCG** = Sod./Disod. Cocoyl Glutamate; **SLES** = Sodium Laureth Sulfate; **DLSS** = Disodium Laureth Sulfosuccinate (REWOPOL® SB FA 30 B); **DLS** = Disodium Lauryl Sulfosuccinate; **CAPB** = Cocamidopropyl Betaine (TEGO® Betain F 50)

### Storage and processing hints

A possible adhesion of single pellets to form agglomerates during transportation/storage does not adversely affect the performance of ANTIL® 120 Plus MB.

### Hazardous goods classification

Information concerning

- classification and labelling according to regulations for transport of chemicals
- protective measures for storage and handling
- measures in case of accidents and fire
- toxicological and ecotoxicological effects

is given in our safety data sheets.

### Guideline formulations

If you are interested in guideline formulations please visit our homepage <https://personal-care.evonik.com>.

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