

# CLAYTONE-VP V

Powdered rheology additive based on an organophilic phyllosilicate for non-polar to medium-polar systems to produce a thixotropic flow behavior.

## Product Data

### Composition

Organophilic phyllosilicate

Organic plant-based  
post-treatment

### Typical Properties

The values indicated in this data sheet describe typical properties and do not constitute specification limits.

Bulk density: 400-600 kg/m<sup>3</sup>

Water content: max. 5 %

Specific weight: 1.8 g/cm<sup>3</sup>

### Food Contact Legal Status

For the current food contact legal status, please contact our product safety department or visit [www.byk.com](http://www.byk.com) for further information.

### Storage and Transportation

CLAYTONE-VP V should be transported and stored dry in the unopened original container at temperatures between 0 °C (32 °F) and 30 °C (86 °F).

## Applications

### Lubricating oils and greases

#### Special Features and Benefits

CLAYTONE-VP V can be used as a thickener in low-polar to medium-polar oils. The product requires the use of an activator in order to guarantee the complete separation of the platelets (complete dispersion of agglomerates to primary particles) and to ensure optimum effectiveness. The product swells in organic media and results in a gel structure. Weak hydrogen bridge bonds are the reasons for the thixotropic flow behavior. The special feature of CLAYTONE-VP V is the entirely plant-based organic post-treatment.

#### Recommended Use

CLAYTONE-VP V can be used as a thickener in low-polar to medium-polar oils.

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### Recommended Levels

Lubricating oils:

1-4 % CLAYTONE-VP V for an increase in the viscosity with thixotropic flow behavior and anti-settling properties.

Greases:

5-7 % CLAYTONE-VP V for NLGI classes 1 to 2 in mineral oils.

The above recommended levels can be used for orientation. Optimal levels are determined through a demarcating series of laboratory tests.

### Incorporation and Processing Instructions

The additive requires a high shear forces and a polar activator to separate the phyllosilicate platelets and disperse them fully. High-shear equipment such as a colloid mill should be used for processing.

As an activator, it is recommended to use approx. 20% (referring to CLAYTONE-VP V) of, for example,

- propylene carbonate or propylene carbonate/water (95/5)
- methanol or methanol/water (95/5)
- ethanol or ethanol/water (95/5)



Additive Guide



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