OPTIGEL-CK

Rheology additive based on an activated phyllosilicate to generate thixotropic flow behavior in aqueous systems.

Product data

Composition
Activated phyllosilicate

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

Bulk density:	550-750 kg/m³
Water content:	max. 13 %
Delivery form:	powder

Storage and transportation
Product shelf life in unopened original packaging: 24 months
Moisture sensitive. Store dry.

Applications

Coatings industry

Special features and benefits

- Creation of thixotropic flow behavior
- Improvement of
  - Storage stability by preventing the settling of solids
  - Processing properties
  - Sag resistance
- Enables greater film thicknesses
- Stable against diluted bases and common diluted acids

Recommended use
OPTIGEL-CK is suitable for a variety of aqueous coating systems, as well as for pigment concentrates.

Architectural coatings	■
Floor coatings	■
Can coatings	□
General industrial coatings	□
Marine and protective coatings	□
Wood and furniture coatings	□

■ Especially recommended □ Recommended

Recommended levels
0.1-3.0 % additive (as supplied) based on the total formulation, depending on the properties of the formulation to be achieved.

The above recommended levels can be used for orientation. The optimum dosage should be determined by application-related test series.

Incorporation and processing instructions
OPTIGEL-CK should be added to the millbase along with the pigments and fillers. This ensures optimal activation, dispersion, and development of the desired thixotropic flow behavior. If post-addition is necessary, a pregel can be prepared prior to incorporation. Preparing a pregel helps ensure proper swelling and prevents insufficient activation and formation of lumps when adding the product later in the process.

Adhesives and sealants

Special features and benefits
- Creation of thixotropic flow behavior
- Improvement of
    - Storage stability by preventing the settling of solids
    - Processing properties
    - Sag resistance
- Enables greater film thicknesses
- Stable against diluted bases and common diluted acids

Recommended use
OPTIGEL-CK is particulary suitable for aqueous and highly filled adhesive and sealant formulations based on acrylics, styrene acrylics, vinyl acetate-ethylenes and polyvinyl acetates.

Recommended levels
0.1-3.0 % additive (as supplied) based on the total formulation, depending on the properties of the formulation to be achieved.

The above recommended levels can be used for orientation. The optimum dosage should be determined by application-related test series.

Incorporation and processing instructions
OPTIGEL-CK should be added to the formulation together with fillers. This ensures optimal activation, dispersion, and development of the desired thixotropic flow behavior. If post-addition is necessary, a pregel can be prepared prior to incorporation. Preparing a pregel helps ensure proper swelling and avoids insufficient activation or formation of lumps when the product is added later in the process.

Home care and I&I

Special features and benefits
- Rheology additive for various aqueous systems:
    - Creation of thixotropic flow behavior
    - Improvement of
        - Storage stability by preventing the settling of abrasive materials and other particles
        - Adhesion to vertical surfaces
        - Cleaning action due to longer exposure time
        - Processing and application properties (e.g. spraying)
- Binding and dispersing agent in tabs
- Anti-static agent
- Softening component in detergents
- Good electrolyte resistance to sodium salts as well as good compatibility with chlorine bleaches and surfactants (except cationic surfactants)

Recommended use
OPTIGEL-CK is particularly suitable for use in aqueous cleaning and care products in the pH range between 2 and 13.

Detergents	☐
Floor care products	☐
Cleaning agents (aqueous)	☐

■ Especially recommended ☐ Recommended

Recommended levels
0.5-3.0 % additive (as supplied) based on the total formulation, depending on the properties of the formulation to be achieved.

The above recommended levels can be used for orientation. The optimum dosage should be determined by application-related test series.

Incorporation and processing instructions
OPTIGEL-CK is hydrophilic and easy to incorporate into water. To ensure optimal distribution, effectiveness, and reproducibility, the additive must be added to water (20 °C ± 5 °C) slowly whilst stirring, and pre-dispersed at high shear forces for at least 20 minutes. For optimal incorporation, the concentration of OPTIGEL-CK in this pre-mix should be 5-7 %. The additive should be fully hydrated before adding the remaining water and formulation components to the dispersion. No wetting and dispersing additives are required to produce this dispersion.

Special note
The choice of the best-suited rheology additive is determined by the rheological requirement profile, the physical properties (color, transparency, etc.), and the compatibility with the chemical environment of the respective detergent and cleaning agent.

Agricultural industry

Special features and benefits
- All-purpose rheology additive
- Creation of thixotropic flow behavior

Recommended use
OPTIGEL-CK is particularly suitable for aqueous crop protection formulations based on emulsions and emulsion concentrates as well as for suspensions/suspension concentrates and water-dispersible granulates.

Recommended levels
0.05-1.50 % additive (as supplied) based on the total formulation, depending on the properties of the formulation to be achieved.

The above recommended levels can be used for orientation. The optimum dosage should be determined by application-related test series.

Incorporation and processing instructions
OPTIGEL-CK is hydrophilic and easy to incorporate into water. To ensure optimal distribution, effectiveness, and reproducibility, the additive must be added to water (20 °C ± 5 °C) slowly whilst stirring, and pre-dispersed at high shear forces for at least 20 minutes. For optimal incorporation, the concentration of OPTIGEL-CK in this pre-mix should be 5-7 %. The additive should be fully hydrated before adding the remaining water and formulation components to the dispersion. No wetting and dispersing additives are required to produce this dispersion.

Leather finishes and coated fabrics

Special features and benefits

- Creation of thixotropic flow behavior
- Improvement of
  - Storage stability by preventing the settling of solids (e.g. pigments, fillers, flame retardants)
  - Processing properties
- Reduces floating of low-density fillers
- Stable against diluted bases and common diluted acids
- The stability to diluted acids must be checked on a case-by-case basis.

Recommended use

Leather finishes	■
Coated fabrics	■

■ Especially recommended ▢ Recommended

Recommended levels

0.1-3.0 % additive (as supplied) based on the total formulation, depending on the properties of the formulation to be achieved.

The above recommended levels can be used for orientation. The optimum dosage should be determined by application-related test series.

Incorporation and processing instructions

OPTIGEL-CK is hydrophilic and easy to incorporate into water. To ensure optimal distribution, effectiveness, and reproducibility, the additive must be added to water (20 °C ± 5 °C) slowly whilst stirring, and pre-dispersed at high shear forces for at least 20 minutes. OPTIGEL-CK should be fully hydrated before adding the remaining formulation components to the dispersion. No wetting and dispersing additives are required to produce this dispersion.

Your local contact

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