OPTIGEL-WA

Rheology additive based on an activated phyllosilicate for aqueous coating systems and dispersion-based construction applications to generate thixotropic flow behavior.

Product Data

Composition
Activated phyllosilicate

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

Specific density:	2.4 g/cm³
Bulk density:	400-600 kg/m³
Moisture content:	9 % ± 3 %
Supplied as:	free-flowing, white powder
pH value (2 % in H_2O):	7-8

Food Contact Legal Status
For the current food contact legal status, please contact our product safety department or visit www.byk.com for further information.

Storage and Transportation
OPTIGEL-WA is hygroscopic and should be transported and stored dry in the unopened original container at temperatures between 0 °C (32°F) and 30 °C (86 °F).

Applications

Coatings Industry

Special Features and Benefits
OPTIGEL-WA generates thixotropic flow behavior. It improves processability and storage stability as it is highly effective at preventing solids settling. In addition, it reduces the sagging tendency after application which makes it possible to achieve greater layer thicknesses.

Recommended Use
OPTIGEL-WA is suitable for a variety of aqueous coating systems. It can be used in pH-neutral and alkaline systems.

Architectural coatings	■
Wood and furniture coatings	■

■ especially recommended □ recommended

Recommended Levels
0.3-2.0 % additive (as supplied) based upon the total formulation, depending on the properties of the formulation to be achieved.

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

Incorporation and Processing Instructions
OPTIGEL-WA is hydrophilic and easy to incorporate in water. To ensure optimum distribution and the best possible effectiveness and reproducibility in applications, the additive must be added to water (20 °C ± 5 °C) (68 °F ± 41 °F) slowly whilst stirring, and pre-dispersed at high shear forces for at least 20 minutes. OPTIGEL-WA should be fully hydrated before the remaining formulation components can be added to the dispersion. No wetting or dispersing additives are required to produce this dispersion.

OPTIGEL-WA can also be added to the formulation directly, as a powder at the start of manufacture (post-added).

Construction industry

Special Features and Benefits
In free-flowing systems, OPTIGEL-WA prevents the aggregate settling and the tendency towards syneresis. In high-solid construction systems it achieves smooth processability and improved anti-sagging properties.

Recommended Use
OPTIGEL-WA is suitable for emulsion-based plaster or adhesive systems.

Paste-like tile adhesives	■
Paste-like putty compounds	■

■ especially recommended □ recommended

Recommended Levels
0.2-12 % additive (as supplied) based upon the total formulation, depending on the properties of the formulation to be achieved.

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

Incorporation and Processing Instructions
OPTIGEL-WA is hydrophilic, we therefore recommend pre-dispersing in water. The additive should be added to water slowly whilst stirring, and pre-dispersed at high shear forces for at least 20 minutes. All other system components can then be added to the dispersion.

Adhesives and sealants

Special Features and Benefits
OPTIGEL-WA generates thixotropic flow behavior in adhesives and sealants. It improves processability and storage stability as it is highly effective at preventing solids settling. It improves the slip behavior, anti-sagging properties and ridge formation. OPTIGEL-WA is inorganic and stable to diluted acids and bases.

Recommended Use
OPTIGEL-WA is suitable for a variety of aqueous systems. It is suitable for pH neutral, acidic and basic adhesives and sealants.

Floor adhesives	■
Acrylate sealants	■
Wood glues	■
Dispersion adhesives	■

■ especially recommended □ recommended

Recommended Levels
0.5-2.0 % additive (as supplied) based upon the total formulation, depending on the properties of the formulation to be achieved.

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

Incorporation and Processing Instructions
OPTIGEL-WA is hydrophilic and easy to incorporate in water. To ensure optimum distribution and the best possible effectiveness and reproducibility in applications, the additive must be added to water (20 °C ± 5 °C) (68 °F ± 41 °F) slowly whilst stirring, and pre-dispersed at high shear forces for at least 20 minutes. OPTIGEL-WA should be fully hydrated before the remaining formulation components can be added to the dispersion. No wetting or dispersing additives are required to produce this dispersion.

OPTIGEL-WA can also be added to the formulation directly, as a powder at the start of manufacture.

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Data Sheet
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