RHEOBYK-7685

Bio-based associative thickener (HEUR) for aqueous systems to generate Newtonian flow behavior.

Product data

Composition
Solution of polyurethane

VOC-free (< 1500 ppm)
APEO-free
Tin-free

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

Density:	1.04 g/cm³
pH value:	7
Active substance:	22.5 %
Solvent:	water
Bio-based carbon content (ASTM D6866):	95 %
Delivery form:	liquid

Storage and transportation
Product shelf life in unopened original packaging: 18 months
To be stored and transported at a temperature below 40 °C. Stir before use.

Applications

Coatings industry

Special features and benefits

- Rheological effect:
  - Viscosity increase in the high shear range
  - Very little impact on viscosity in the low shear range
- Improvement of:
  - Processability
  - Leveling
  - Storage stability
- Systems:
  - Aqueous
  - Aqueous UV-curable
- Reduces spattering during application
- Achieves higher film thicknesses along with an excellent balance between flow and leveling
- No negative impact on gloss, color acceptance, or rub-out
- Easy handling due to liquid delivery form
- Requires no special pH adjustment or temperature control during incorporation
- Can be combined with rheology additives that are effective in the low shear range

Recommended use
RHEOBYK-7685 is preferably used in aqueous emulsion paints and coatings that are based on acrylate, styrene acrylate, and vinyl acetate copolymer binders, as well as in PU and alkyd emulsions.

Architectural coatings	■
General industrial coatings	■
Floor coatings	■
Wood and furniture coatings	☐
Marine and protective coatings	☐

■ especially recommended ☐ recommended

Recommended levels
1-4 % 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
Addition under stirring ensures optimum distribution and the best possible effectiveness and reproducibility in applications. RHEOBYK-7685 is suitable for adding to the millbase, to the letdown, or as a post-additive to retroactively adjust the rheological properties.

Adhesives and sealants

Special features and benefits
- Rheological effect:
  - Viscosity increase in the high shear range
  - Very little impact on viscosity in the low shear range
- Improvement of:
  - Processability
  - Leveling
  - Storage stability
- Systems:
  - Aqueous
- Reduces spattering during application
- Achieves higher film thicknesses along with an excellent balance between flow and leveling
- Easy handling due to liquid delivery form
- Requires no special pH adjustment or temperature control during incorporation
- Can be combined with rheology additives that are effective in the low shear range

Recommended use
RHEOBYK-7685 is suitable for use in high-polar and aqueous binder systems.

Recommended levels
0.5-4 % 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
Addition under stirring ensures optimum distribution and the best possible effectiveness and reproducibility in applications. RHEOBYK-7685 is suitable for direct addition to the formulation or as a post-additive to retroactively adjust the rheological properties.

Leather finishes and coated fabrics

Special features and benefits

- Rheological effect:
  - Viscosity increase in the high shear range
  - Very little impact on viscosity in the low shear range
- Improvement of:
  - Processability
  - Leveling
  - Storage stability
- Systems:
  - Aqueous
- Especially suitable for blade applications on release papers or by rotogravure applications
- Reduces spattering during spray application
- Achieves higher film thicknesses along with an excellent balance between flow and leveling
- No negative impact on gloss or color acceptance
- Easy handling due to liquid delivery form
- Requires no special pH adjustment or temperature control during incorporation

Recommended use
RHEOBYK-7685 is preferably used in aqueous PU, acrylate, and vinyl acrylate systems.

Leather finishes	■
Coated fabrics	■

■ especially recommended ▢ recommended

Recommended levels
1-6 % 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
Addition under stirring ensures optimum distribution and the best possible effectiveness and reproducibility in applications. RHEOBYK-7685 is suitable for adding to the millbase, to the letdown, or as a post-additive to retroactively adjust the rheological properties.

Paper coatings

Special features and benefits

- Rheological effect:
  - Viscosity increase in the high shear range
  - Very little impact on viscosity in the low shear range
- Improvement of:
  - Processability
- Allows the coating to remain pourable

Recommended use

The additive is compatible with all paper coating systems and can be used in association with all application techniques.

Recommended levels

1-6 % 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

The additive can be incorporated at any stage of the formulation process to adjust viscosity. It is particularly suited for addition after production of the coating system with low to medium shear forces (post-addition).

Your local contact

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