Rheology Modifier for Decorative Coatings

Rheology is crucial for the success of the paint at every step like manufacturing, storage and final application. In both – solvent-based and waterborne formulations – rheology modifiers help to achieve the desired rheological behavior.

Rheology Control
- AEROSIL® can be used in solvent- and water-based systems
- Fast viscosity recovery
- Efficient viscosity increase at a low dosage level by 100% active matter

AEROSIL® primarily served as a tool for adjusting rheology during production, application and storage. AEROSIL® allows to optimize the dispersion characteristics and stability of the pigments used, as well as the flow properties and thickness of applied films.

AEROSIL® R 972
- Hydrophobic component for thickening
- Water resistant, hydrophobing of liquid systems
- Rheology control of complexes liquid systems
- Used as anti-settling agent, pigment stabilization and improvement of corrosion protection

AEROSIL® 200
- Rheology and thixotropic control of liquid systems, binders and polymers
- Used as anti-settling, thickening and anti-sagging agent

Anti-sagging: spray application
Coating system: Unsaturated polyester
Reference – 250 g/m³
AEROSIL® 200 – 550 g/m³

Anti-sagging: maximum wet film thickness
Coating system: Water-based filler
Reference
2.0% AEROSIL® R 972
Rheological Additives

- TEGO® ViscoPlus series can be used in water-based systems
- Easy to incorporate
- Rheology profiles from Newtonian to strong pseudoplastic flow behavior
- Low impact on gloss
- Excellent compatibility with tinting system

The TEGO® ViscoPlus product range consists of associative, polyurethane thickeners which satisfy the latest requirements of the industry. All TEGO® ViscoPlus products are liquid and free from organic solvents, alkylphenolethoxylates and organotin compounds. Each TEGO® ViscoPlus product has a different rheological profile. The various products could be combined easily with each other due to their excellent compatibility.

**TEGO® ViscoPlus 3000**
- Newtonian thickener
- Constant thickening over the broad shear range
- Universally applicable
- For water-based paints & coatings
- Efficient drag resistance and prevent spattering
- Higher gloss and better leveling
- Active matter: 25%

**TEGO® ViscoPlus 3010**
- Newtonian thickener
- Especially for ICI-viscosity
- Very strong high shear thickening
- Universally applicable
- For water-based paints & coatings
- Efficient drag resistance and prevent spattering
- Active matter: 60%

**TEGO® ViscoPlus 3030**
- Pseudoplastic flow behavior, which means the viscosity decreases with increasing shear loading
- Universally applicable
- For water-based paints & coatings
- Efficient structure viscosity
- Active matter: 60%

**TEGO® ViscoPlus 3060**
- Strong pseudoplastic flow behavior, which means the viscosity decreases with increasing shear loading
- Universally applicable
- For water-based paints & coatings
- Active matter: 60%

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**Improved sag resistance and levelling**

Semi-Gloss Emulsion paint, PVC: 29 %, Solids content: 56 %

- 6.5 % pseudoplastic PU-Thickener
- 1.2 % Acrylate Thickener (strong pseudoplastic)
- 2.5 % TEGO® ViscoPlus 3030
- 0.5 % TEGO® ViscoPlus 3060

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**Anti-spatting effect in architectural paints**

Semi-Gloss Emulsion paint

- PVC: 29 %
- Solids content: 56 %

- Original
- + 0.5 % TEGO® ViscoPlus 3030
- + 1.0 % TEGO® ViscoPlus 3060

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