Hydrite Chemical Co. Technology Group



Our staff of 12 scientists and chemists have 145+ years of combined industry experience with PhD, MS, and BS in Chemistry, Biochemistry, Biomolecular Engineering, Analytical Chemistry, and Inorganic Chemistry.

Combined Areas of Expertise: Product Development, Technical Services, Field Technical Support, Analytical Characterization, Competitive Analysis, Benchmarking, Root Cause Analysis, Analytical Method Development, Statistical Analysis and Design of Experiments.

Paints & Coatings Industry

Formulating Expertise and Technical Services in:

Areas of Expertise

- Architectural Paints and Coatings
- Industrial and Household Paints and Coatings
- Packaging
- Graphic Arts
- Adhesives
- Wood Coatings

Paints & Coatings Industry Capabilities

Density: Measures the effectiveness of a defoamer on entrained air in a system

Tri-Gloss Measurement: Compatibility of a defoamer in a gloss or sheen paints and coating application (flat, eggshell, semi-gloss, gloss)

High Shear Mixing: Determine the efficiency and persistence of a defoamer in surfactant systems under high shear or stress

Circulatory Foam Test: Simulate many industrial application conditions to determine the effectiveness of the defoamer in surfactant systems under a circulatory application

Drawdown Assessment: Evaluate surface defects and bubble breaking ability in finished paint systems (i.e. craters, orange peel, fisheyes, etc.)

D/Emulsification: Formulation expertise to optimize emulsification or demulsification needs

Shear Properties: Evaluation of viscosity and shear conditions to understand spray, flow, brushing, and sag properties

Storage Stability: Evaluation of the quality of a product with time under the influence of environmental factors (temperature, humidity, light)

Shake Test: Fast and simplistic way to measure generated foam in a non-pigmented system





Performance and Property Analysis

- Particle Size & Distribution
- Thermal: Evaluation of thermal properties to asses material performance & stability, pourability, degradation, solidification, gloss transition temperatures
- Viscosity/Rheology: Viscosity, flow, visco-elastic properties
- Compatibilities: Surface tension, wettability, substrate compatibility
- Other properties: pH, conductivity, SG/density

Chemical Identification and Characterization

- Chemical Analysis and Assay
- Impurities and Contaminants
- General Chemistries and Functional Groups
- Organic and Inorganic Chemistries

- Molecular Weight and Distribution
- Liquid and Solid analysis
- Bulk and Surface Analysis

Additional Capabilities

- Pilot Batching and Scale-up
- Benchmarking

- Competitive Analysis
- Field Support