

A modern bathroom interior featuring a large glass shower enclosure with a black frame. Inside the shower, there is a large square rain showerhead and a handheld shower wand. A chrome shower tray is mounted on the wall. To the left of the shower, there is a white oval sink on a dark grey vanity unit. A large round mirror is mounted on the wall above the sink. The walls are a light blue color, and the floor is a darker blue. The overall aesthetic is clean and contemporary.

ELEMENTIS

Adding future
with Architectural additive solutions



Welcome to a new world of architectural paint formulations

Where quality and innovation shape the future

At Elementis, we support paint manufacturers in creating high-performance, safe, eco-friendly paints with our additives. Our mission is to be your preferred additive partner for tomorrow's formulations.

Our **portfolio** of specialty chemicals for architectural applications covers nearly 80% of the most widely used additive solutions. By prioritizing sustainability and advanced technology, we ensure that these products can take architectural paint formulations to new levels of excellence.

Using our extensive knowledge of **rheology** — the science of the flow of materials — we provide paint manufacturers with the expertise necessary to produce standout paints. Paints that are easy to apply, exhibit precise flow characteristics, and offer a smooth, high-quality finish.

Through artificial intelligence, big data analytics, and interviews with industry professionals, we also go beyond traditional methods to drive **market-led innovation**. This allows us to develop next-generation solutions that align with the architectural coatings industry's evolving demands.

And in all our innovation efforts, we strive for our products to **combine performance with safety and sustainability**, surpassing industry standards and meeting customer demand.

Step into a new world of architectural paint formulations with us, where sustainability and high performance are not just goals but realities.

Let's paint a future filled with endless possibilities.



A wide-ranging, advanced technology portfolio

Our collection of technologies accounts for nearly 80% of the most widely used additives in architectural paint formulations. This portfolio features high-performance solutions such as defoamers, rheology modifiers, slip aids, wetting and dispersant agents. Elementis customers recognize its effectiveness and ability to meet the architectural sector's diverse needs.

Central to this comprehensive portfolio is our deep understanding of rheology: the science of the flow of materials. Drawing on this understanding, we have developed a range of products that can fine-tune all aspects of flow and stability in paint formulations.

Our product lines, including BENTONE®, RHEOLATE®, NUOSPERSE®, DAPRO®, THIXATROL®, and FINNTALC, consistently meet and often surpass industry standards, driving innovation across the architectural sector. Supported by a global network of 17 manufacturing sites and regional application labs, we guarantee timely, efficient delivery and support.

RHEOLATE® NISAT

RHEOLATE® nonionic synthetic associative thickeners (NiSAT) provide coatings with good rheological properties. This enables an excellent balance between thickening, flow & leveling, and sagging control, while supporting the reduction of unwanted side effects (e.g., stains, 'snail trails', blocking, and water sensitivity).

RHEOLATE® ASE/HASE

ASE (alkali-soluble emulsions) and HASE (hydrophobically-modified alkali-soluble emulsions) rheology modifiers are part of the polymeric thickener family, playing a crucial role in aqueous system formulations. They are celebrated for their ability to create excellent flow characteristics, ensure storage stability, and provide a range of performance properties.

BENTONE®

Based on hectorite clays, BENTONE® rheological additives can thicken aqueous systems, providing excellent in-can stability, anti-sedimentation, sag control, and workability.

NUOSPERSE®

NUOSPERSE® wetting and dispersing agents provide good application performance for inorganic, organic, and carbon black pigments. They are widely compatible with many coating formulas, imparting lower foaming and improved stability.

DAPRO®

DAPRO® antifoaming and defoaming agents are effective in both the grinding and the letdown stages of a wide range of coating systems.

FINNTALC

Finntalc grades are pure, platy talcs that have undergone a unique beneficiation process to ensure consistent quality and organic barrier properties.

THIXATROL®

THIXATROL® rheology modifiers are organic thixotropes that enable the formulation of high-performance industrial coatings.



The role of rheology

Tested performance properties

Rheology, originating from the Greek terms 'rheo' for 'flow' and 'logia' for 'study,' is the science of the flow of materials. Understanding rheology is essential to understanding and managing how paints and coatings behave when subjected to various forces.

Central to harnessing rheology are rheological additives. The function of these substances goes beyond simple thickening. They act as 'flow designers', molding the material's behavior to enhance characteristics such as anti-sagging, storage stability, ease of application, spatter resistance, and ultimately, the coating finish. Rheological additives help guarantee that, as the brush glides over the surface, the paint distributes evenly, settles smoothly, and forms a visually appealing and durable layer.

With 50+ years of experience with rheological additives, Elementis' understanding of rheology's core principles means we can anticipate and direct the response of substances under stress. Whether they flow gently like honey or disperse erratically like mud.

Our rheology services and assets include:

Global rheology expertise, regional availability

With 17 manufacturing sites and 3 innovation expertise centers, we can leverage our rheology expertise globally, while also supporting on a regional or local scale. We produce our NiSAT thickeners, acrylic ASE/HASE thickeners, and waterborne clays, blends, and organoclays in the American, European, and Asian markets. This ensures short lead times and security of supply.

World's largest source of high-quality hectorite clay – for high performance formulations

Hectorite offers superior rheology in water and oil-based systems via its unique molecular structure. It enables lower processing temperatures while delivering secondary benefits, such as long-term stability for our Performance Specialties additives. Hectorite is also a natural alternative to synthetic materials. Our California-based mine is the largest high-quality hectorite mine in the world, and a key source for our BENTONE® rheological additives.

Rheology handbook

The Rheology Handbook explores the study of the flow and deformation of matter, focusing on the role of rheology modifiers in controlling these properties. It serves as both a reference book and a textbook for understanding the theory behind rheological additive development. The handbook covers the practical applications of rheology in quality control, production, and various fields including chemical and mechanical engineering, materials science, and industrial research and development.

Technical rheology seminars and webinars

To share our knowledge of rheology with you, our rheology experts regularly offer technical rheology seminars. During these sessions, we elaborate on common formulation challenges and can dive deeper into custom topics. On our website, you'll also find several webinars on rheology additives and other additives that support the development of high-performance paints.

Market-led innovation

The world around us is rich with data on paints and coatings—how they are used and what consumers are looking for. These market insights are vital for developing the right solutions. That's why we use big data, analyze search behavior, and conduct a wide variety of interviews with painters, consumers, architects, and contractors to ensure our solutions meet the architectural coating industry's evolving demands.

Assembling the 'data mosaic'

Our approach at Elementis involves assembling a 'data mosaic', with pieces collected from various sources:

- Big data: We tap into the colossal stream of information generated by 7.8 billion Google searches related to architectural paint problems, features, and other needs.
- User reviews: We gain firsthand perspectives on products and experiences from over 1,000,000 end-user reviews.
- Industry dialogues: We glean nuanced insights from 115,000+ interviews with painters, architects, and other professionals, as well as consumers.

Together, we examine this 'mosaic' of market data to discover insights, including through workshops. From these insights, we find opportunities to create innovative solutions, projects, or proposals, or enhance existing ones. Ultimately, this accelerates the development of paints that meet emerging market demands.

Collaborating on tailor-made solutions

At Elementis, cross-functional teams from product management, marketing, R&D, and other key stakeholders all drive our innovation pipeline. Alongside this, we also partner with paint manufacturers themselves. These collaborations enable us to craft strategies that meet the evolving demands of our customers.

Combining our unique market insights with our extensive collection of technologies, we develop innovative additives that support the formulations of tomorrow. With three global innovation centers and multiple local labs, we blend our global expertise with regional formulation know-how to deliver local solutions. Our expert teams are dedicated to supporting customized innovation projects and creating tailor-made solutions to meet specific needs.

Combining performance, safety, and sustainability

Increasingly, consumers and end-users of architectural paints look for higher-performing, safer, and more sustainable products. At Elementis, we offer solutions to meet all three needs.

Higher performance

Demand is growing for more functional paints that can be applied more efficiently. This trend is pushing manufacturers to enhance performance in areas such as opacity, coverage, flow & leveling, dark color stability, and resistance to stains, scuffs, scrubs, and scratches.

Our solutions can support these goals. For instance, our **RHEOLATE® CVS** technology minimizes the drop in viscosity when tinting dark colors, while **NUOSPERSE® FX 7500W** provides exceptional color stability and overall paint performance. And the patented technology in the **RHEOLATE® HX** series delivers outstanding application properties, improves applied hide, reduces unwanted stains and water sensitivities, and has excellent color acceptance.

For exterior architectural coatings specifically, consumers and end-users need smart solutions that can prolong maintenance intervals, improve dirt resistance, reduce 'snail trails', and withstand severe changes in climate. We address this need with concepts such as cool roofing, self-cleaning exterior wall paints, and direct-to-metal and multi-substrate adhesion solutions. These can all be tailored to specific binder chemistries and requirements.

Safer ingredients

Health and safety are also top priorities for consumers and end-users. Together with stricter eco-labels and regulations, concern around these topics is driving demand for less toxic paint formulations.

We address this with solutions like the **RHEOLATE® IF** series. Products in this series are free from methylisothiazolinone (MIT) and benzothiazolinone (BIT) biocides, harmful volatile organic compounds (VOCs), tin, and alkylphenol ethoxylates (APEOs), ensuring broad labeling compliance. Most of these grades are even suitable for asthma-friendly paint formulations.

RHEOLATE® Powder NiSAT is another range that addresses the needs of health-conscious consumers. These products are biocide-, solvent-, and VOC-free, and are also suitable for allergy- and asthma-friendly formulations.

Sustainability

More and more end-users and painters look for environmentally friendly paints. In response, manufacturers are increasingly prioritizing sustainability, seeking to reduce their carbon emissions and adopt 'greener' formulations. For this, they need renewable ingredients and smart solutions.

We support these efforts with solutions such as **RHEOLATE® Powder NiSAT**. These 100% active urethane rheology modifiers can reduce carbon emissions from transportation by up to 80%. Additionally, being water-free, they contain no biocides, VOCs, or other dilutors, contributing to safer paint formulations. To complement this range and enhance your green formulations, we also offer a range of bio-based renewable additives. These include **RHEOLATE® bio-based NiSAT** and **DAPRO® Bio 9910** containing >90% biobased verifiable content (C14).

What you can achieve with our additives



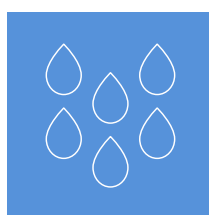
IN-CAN STABILITY



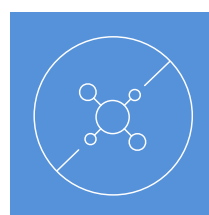
FLOW & LEVELING



SPATTERING
RESISTANCE



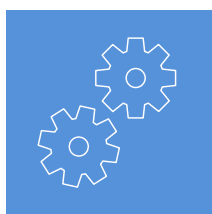
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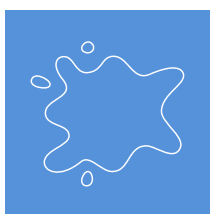
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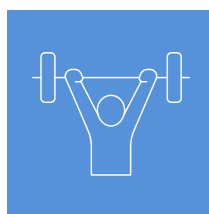
HIGH EFFICIENCY



STAIN RESISTANCE



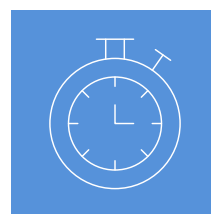
SCRUB RESISTANCE



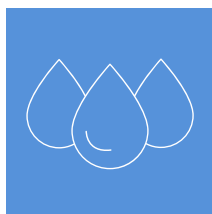
DURABILITY



HARDNESS



OPEN TIME



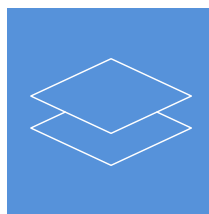
WATER RESISTANCE



BIO-BASED



WET SCRUB
RESISTANCE



BARRIER
PROPERTIES



BRUSH UPTAKE



COLOR BRILLIANCE



Our additives

RHEOLOGY MODIFIERS

RHEOLATE® NiSAT (non-ionic synthetic associative thickeners)

NiSAT thickeners (abbreviated from 'non-ionic synthetic associative thickeners') are renowned for their versatility across a broad pH spectrum. This makes them ideal for a wide range of applications where specific rheology profiles are required.

Key advantages:

- **Customizable rheology:** NiSAT thickeners are precisely formulated to tailor rheological properties to your specific needs. They ensure optimal flow control, leveling, and stability in your formulations.
- **Enhanced application performance:** NiSAT delivers exceptional leveling and spatter resistance, along with an ideal film build, for superior application results.
- **Syneresis prevention:** Formulated to minimize syneresis, NiSAT enhances the long-term stability of coatings, ensuring consistent quality over time.
- **User-friendliness:** NiSAT thickeners are designed for ease of use, requiring no special activation and allowing for addition during various stages of the production process.
- **Application versatility:** NiSAT thickeners are ideal for a wide range of applications, from glossy enamel paints and transparent floor coatings to a diverse variety of pigmented wall paint systems.



RHEOLATE® HX SERIES

Patented branching technology to boost efficiency and performance and make your formulations less complex.

- Extremely efficient
- High-, mid-, and low-shear-viscosity contribution
- Improved spatter resistance in combination with excellent leveling
- Supports reduction of unwanted side effects such as 'snail trails', staining, and blocking
- Option for one thickener for both KU and ICI viscosity

RHEOLATE® IF SERIES

Safer additive ingredients for future-ready paints.

- Excellent flow & leveling
- Enhanced spatter resistance
- Superior sag resistance
- Ultra-low VOC content; free of tin, APEOs, and biocides (isothiazoline)
- Broad ecolabeling compliance
- Meets requirements for asthma- and allergy-friendly paint

RHEOLATE® CVS SERIES

Additives for viscosity control when tinting: minimal drop, maximum impact.

- Excellent viscosity retention after tinting
- Superior color acceptance and stability
- Improved thickening efficiency
- Very good application properties and sag stability

RHEOLATE® BIO-BASED NiSAT

Additives that bring verifiable bio-based content to your formulations.

- Up to 92% bio-based C14 content
- Broad ecolabeling compliance
- Equal or improved performance compared with traditional NiSAT thickeners
- High-, mid-, and low-shear-viscosity contribution

ARCHITECTURAL COATINGS

Product name	Chemistry	Description	Key benefits	Shear rate		
				Low	Medium	High
RHEOLATE® HX 6010 IF	Polyether polyurethane	Highly efficient, Newtonian high-shear builder. Excellent efficiency with hydrophobic resins with exceptional application properties. Isothiazolinone free (MIT/biocide).	• Superior spatter resistance and excellent flow & leveling • Highest efficiency with patented HX Branching technology • Compatible in all resin systems			●●●
RHEOLATE® HX 6025	Polyether urea polyurethane	Highly efficient high-shear-viscosity builder; Use for roller/ brush application resulting in exceptional application properties like spatter resistance, hiding power and material transfer. Excellent stain resistance in deco paint systems. Supports stain resistance and anti-snail trail functionalities.	• Superior spatter resistance and excellent flow & leveling • Highest efficiency with patented HX Branching technology • Improved applied hide properties • Supports the reduction snail trails, staining, blocking			●●●
RHEOLATE® 212 IF	Polyether urea polyurethane	High-shear viscosity builder providing Newtonian flow. Ideally to be combined with pseudoplastic NISAT grade for ideally balanced properties. Isothiazoline free (MIT/BIT).	• Exceptional spatter resistance • High film build with outstanding flow & leveling • Low odor, Biocide-, VOC-, APEO-Free		●	●●
RHEOLATE® BIO 5010	Polyether urea polyurethane, bio-based	High-shear-viscosity builder with little influence on mid-shear-viscosity. In roller applied paints often used in combination with NISAT grades like RHEOLATE® BIO 5075. 92% biobased carbon content and isothiazolinone free.	• 92% Biobased carbon content (C14) • Exceptional spatter resistance • High film build with outstanding flow & leveling • Low odor, VOC-, APEO-, MIT/BIT Free		●	●●
RHEOLATE® 350 D	Polyether polyol	High-shear-viscosity builder with impact on mid-shear-viscosity; specifically for parquet coatings/ roller and brush application/ self-levelling; no negative impact on transparency.	• No negative impact on gloss • High-shear builder with mid-shear contribution • Great syneresis control	●	●●	●●
RHEOLATE® HX 6008 IF	Polyether polyurethane	Highly efficient high-shear-viscosity builder with significant mid-shear-viscosity contribution; often as single thickener in use; especially for smaller particle size binder emulsions (acrylic, styrene-acrylic, AQ-alkyd, PU, etc). Isothiazoline free (MIT/BIT).	• 2-1 rheology modifier to contribute on ICI and KU • Outstanding flow & leveling • Highest efficiency with patented HX Branching technology		●●	●●●
RHEOLATE® 644 IF	Polyether urea polyurethane	Universal high- to medium-shear-viscosity builder. RHEOLATE® 644: VOC-reduced and isothiazolinone free version of RHEOLATE® 244.	• Enhances film build with good brush drag • Provides effective flow and levelling control • VOC-, APEO-, Solvent- free and very low in odor		●●	●●●
RHEOLATE® 678 IF	Polyether urea polyurethane	Excellent mid-high shear viscosity builder. Can be used as the sole thickener in quality acrylic flats and eggshell finishes. RHEOLATE® 678 IF is a VOC-reduced and isothiazolinone free version of RHEOLATE® 278 TF.	• 2-1 rheology modifier to contribute on ICI and KU • Good balance of sag resistance and flow & leveling • Good spatter resistance • Low VOC*		●●●	●●
RHEOLATE® HX 6050 IF	Polyether polyurethane	Highly efficient high-shear-viscosity builder for larger particle size binder systems with good mid-shear-viscosity contribution. Especially for systems using larger particle sized binders (e.g. VAE, vinyl-ester). Isothiazoline free (MIT/BIT).	• Superior flow and leveling with excellent sag resistance • Low odor, Biocide-, VOC-, APEO-Free • Highest efficiency with patented HX Branching technology		●●	●●●
RHEOLATE® 655 IF	Polyether urea polyurethane	Mid-shear-viscosity builder with slight impact on low-shear-viscosity. "Allrounder". RHEOLATE® 655 VOC-reduced and isothiazolinone free version of RHEOLATE® 255.	• Very good rheology film build, flow and leveling • Reduces spattering during roller application • Great in combination with RHEOLATE® 6025 or 212 IF		●●	
RHEOLATE CVS®-15	Polyether polyurethane	Special mid-shear-viscosity builder tinting systems providing reduced KU-drop upon tinting.	• Minimum viscosity drop at tinting due to CVS technology • Excellent balance of sag and levelling • Compatible in all resin systems	●●	●●	
RHEOLATE® 658	Polyether urea polyurethane	Low-/mid-shear-viscosity builder, especially with small particle-size binders; for combination with high-shear-thickener and for roller/brush application.	• Great balance of sag resistance and leveling • Broad formulation latitude • Broad compatability with additives and binder chemistries	●●	●●	
RHEOLATE® BIO 5075	Polyether urea polyurethane, bio-based	Mid-shear viscosity builder, especially with small particle-size binders; for combination with high-shear-thickener RHEOLATE® BIO 5010 and for roller/brush application. 90% biobased carbon content.	• 90% Biobased carbon content (C14) • Good balance of sag resistance and leveling • Broad formulation latitude • Low odor, VOC-, APEO-, MIT/BIT Free	●●	●●	
RHEOLATE® 666 IF	Polyether urea polyurethane	Low-shear-viscosity builder for combination with high-shear-thickener; specifically for roller/brush application. RHEOLATE® 666 VOC-reduced and isothiazolinone free version of RHEOLATE® 266.	• Creating non dripping effect • Imparts strongly shear thinning flow behaviour • Excellent sag resistance and anti-settling behaviour	●●	●	
RHEOLATE® 288	Polyether urea polyurethane	Highly efficient low-shear-thickener that provides excellent sag resistance during spray application.	• Exceptional clarity in clear-coats flooring, wood coatings • Good flow & leveling with great sag resistance • Effective compared to conventional NISAT	●●●		
RHEOLATE® 299	Polyether urea polyurethane	Most efficient low-shear-thickener providing strongest pseudoplastic flow behaviour resulting in perfect atomization during industrial spray application; also suitable for dip application where homogenous film-thickness is required.	• Imparts strongly shear thinning flow behaviour • Excellent sag resistance and anti-settling behaviour • Effective compared to conventional NISAT	●●●		



RHEOLATE® Powder NiSAT

This range of solvent-free, 100%-solid urethane rheology modifiers is engineered for seamless and flexible integration into advanced formulas. Its powder form enables significant sustainability improvements.

Key advantages:

- Up to 80% CO₂ reduction from lower transportation and storage space requirements.
- Biocide- and VOC-free; meets requirements for allergy- and asthma-friendly paints.
- Higher efficiency and lower KU (Krebs Unit) drop when tinting, with enhanced color acceptance and improved water sensitivity.

Product name	Chemistry	Description	Key benefits	Shear rate		
				Low	Medium	High
RHEOLATE® PHX 7025	Polyether urea polyurethane, powder version	Highly efficient high-shear-viscosity builder; Use for roller/ brush application resulting in exceptional application properties like spatter resistance, hiding power and material transfer. Powder version of RHEOLATE® HX 6025 for sustainable formulations.	• Superior spatter resistance and excellent flow & leveling • Improved color rub out and color acceptance • Realizes up to 80% CO₂ reduction on transportation • Compatible with allergy and asthma-friendly paints.			•••
RHEOLATE® 208	Polyether urea polyurethane	Mid-/high-shear-viscosity builder; often as single thickener in use. Powder version of RHEOLATE® 278 for sustainable formulations.	• 2-1 rheology modifier to contribute on ICI and KU • Up to 18% higher efficiency vs. liquid version • Improved color rub out and color acceptance • Realizes up to 80% CO₂ reduction on transportation		•••	••
RHEOLATE® FX 1100	Polyether polyurethane	RHEOLATE® FX 1100: Powder version of RHEOLATE® FX 1010 for sustainable formulations.	• Up to 12% higher efficiency vs. liquid version • Higher film build and improved edge covering • Realizes up to 80% CO₂ reduction on transportation	••	•	

RHEOLATE® acrylic thickeners

HASE (hydrophobically-modified alkali-soluble emulsions) and ASE (alkali-soluble emulsions) rheology modifiers are part of the polymeric thickener family. They play a crucial role in aqueous system formulations. HASE and ASE are celebrated for their ability to create excellent flow characteristics, ensure storage stability, and provide a range of performance properties.

Key advantages:

- **Viscosity and application enhancement:** ASE & HASE thickeners are expertly designed to boost viscosity development, flow, and application properties, ensuring superior performance in coatings.
- **Efficient formulation alternatives:** These thickeners serve as highly effective alternatives to traditional cellulosic thickeners like hydroxyethyl cellulose (HEC). They provide predictable rheological profiles and enhance both the performance and cost-efficiency of formulations.
- **Robustness against degradation:** ASE & HASE modifiers are specially formulated to resist microbiological and enzyme degradation. In this way, they help prolong shelf-life and preserve quality.
- **Convenient integration:** RHEOLATE® acrylic thickeners can be easily added post-production, offering hassle-free integration into manufacturing processes. This is similar to the ease of use associated with traditional ASE & HASE thickeners.
- **Superior finish quality:** ASE & HASE additives are known for significantly improving spatter resistance and leveling. This results in a smooth and even finish that is characteristic of their excellent application properties.

Product name	Chemistry	Description	Key benefits	Shear rate		
				Low	Medium	High
RHEOLATE® 465	Acrylic emulsion (HASE)	High-shear-viscosity builder providing unique flow and leveling properties in roller/ brush applied paint formulations - improved spatter resistance and brush drag. Highly efficient in systems with small particle size emulsions.	• Effective replacing Cellulosic Thickener • Alkyd-like flow and leveling • Improved hiding on roll-out and brush drag			●
RHEOLATE® 175	Acrylic emulsion (HASE)	Excellent mid-to high-shear-viscosity builder providing excellent film build, leveling and spatter resistance.	• Effective replacing Cellulosic Thickener • Excellent film build, leveling and roller spatter resistance • Perfect in-can stability		●	●
RHEOLATE® 185	Acrylic emulsion (HASE)	Excellent low-shear-viscosity builder developed to replace HEC in interior and exterior paint formulations, giving improved applied hide and reduced spatter. Imparting shear-thinning flow for sag resistance and anti-settling. Reducing mud cracking of paints.	• Effective replacing Cellulosic Thickeners >25% • Mud-cracking resistance in thick coatings • Better applied hide with less spattering	●		
RHEOLATE® 150	Acrylic emulsion (HASE)	Very good low-shear-viscosity builder. Effective alternative to high-molecular-weight HEC.	• Effective replacing Cellulosic Thickeners • Improved leveling and good color acceptance • Imparts good sag-, anti-settling- and spatter- resistance	●		
RHEOLATE® 1	Acrylic emulsion (ASE)	Excellent low-shear-viscosity builder providing pseudoplastic flow properties resulting in perfect spray application.	• Low-shear-rate viscosity • Provides good anti-settling properties • Reduced syneresis and easy to incorporate	●		

BENTONE® hectorite-based rheology modifiers

Clay minerals, particularly hectorite, play a critical role in rheology. Hectorite is a smectite clay that stands out for its unique layered structure, which can intercalate water and other molecules. This distinctive feature allows hectorite to significantly alter the viscosity and flow properties of coatings.

When incorporated into paints, hectorite's platelet-like structure forms a network within the liquid matrix, aligning easily under shear stress during application. This results in low resistance and a smooth flow, ideal for brush or roller applications. Remarkably, once the stress is removed, the network rebuilds itself, increasing viscosity to prevent sagging. This thixotropic behavior is highly desirable: it ensures ease of application while maintaining form, preventing drips, and enhancing finish quality.

Elementis' BENTONE® modifiers harness the power of hectorite mined in our own mine, in the heart of the Mojave Desert. These modifiers improve the functional stability and aesthetic appeal of coatings. They offer versatility in both aqueous and non-aqueous systems. The high surface area of hectorite means that even a small amount can have a significant effect, making it an efficient and valuable rheology modifier.

Key advantages:

- **Optimal balance between sag resistance and flow & leveling:** BENTONE® offers robust sag resistance without compromising on the smooth flow and leveling that professionals need.
- **Viscosity enhancement:** Whether in water-based or solvent-based applications, BENTONE® ensures an effective viscosity build, contributing to the stability and performance of the final product.
- **Efficiency:** Surpassing other mineral-based rheology modifiers, BENTONE® stands out for its significantly higher efficiency, making it a preferred choice for formulators seeking superior results.

Product name	Chemistry	Description	Key benefits	Shear rate		
				Low	Medium	High
BENTONE® EW	Purified and highly beneficiated hectorite clay	Rheological additive is a refined and beneficiated hectorite clay based thickener for waterborne paint and aqueous coating systems.	• Provides thermostable aqueous phase viscosity control • Imparts thixotropy • Enhances texturing and stippling effects • Improves workability/ application of plasters • Promotes fast water release	● ● ●		
BENTONE® LT	Organically modified hectorite clay	Modified clay to improve sag resistance and flow in waterborne systems.	• Highly efficient thickener • Imparts high viscosity • Provides thermo stable aqueous phase viscosity control • Imparts thixotropy	● ● ●	● ●	
BENTONE® DY	Organically modified smectite clay	Super-dispersible organoclay for low polarity applications.	• Imparts reproducible thixotropic flow • Prevents hard settlement of pigments/fillers • Reduces phase separation • Provides excellent suspension • Maintains open-time	●	●	
BENTONE SD® -1	"Superdispersable" organically modified smectite clay	Super-dispersible organoclay for high polarity applications.	• Disperses very easily, no need for pregels • No need chemical activator • Provides stable viscosity build, controls sag and pigment settling	●	●	
BENTONE SD® -2	"Superdispersable" organically modified smectite clay	Super-dispersible organoclay for low polarity applications.	• Disperses very easily, no need for pregels • No need chemical activator • Provides stable viscosity build, controls sag and pigment settling		●	●

WETTING AND DISPERSING AGENTS

Optimal coating performance relies on effective pigment wetting and dispersion. As an essential part of this process, wetting and dispersing agents ensure compatibility with various formulations. By incorporating them, you can optimize the manufacturing process and uphold your coating system’s integrity to meet the high standards of consumers and industry professionals.

Key advantages:

- **Enhanced mill output:** Through rapid pigment wetting, these agents facilitate increased mill throughput, streamlining the production process.
- **Vivid color realization:** Wetting and dispersing agents play a crucial role in unlocking the maximum color potential of pigments, resulting in vibrant and consistent hues.
- **Stability and aesthetics:** By preventing common issues like floating, flooding, rub-up, and hard settling, these agents contribute to the aesthetic quality and longevity of the coating.

Product name	Chemistry	Description	Key benefits	Solventborne	Waterborne
NUOSPERSE® FX 7500W	Polymeric	Universal dispersant for all kind of pigments in resin-free pigment preparations; excellent colour strength and stabilisation of carbon black pigments.	• Excellent color development • Low foaming • Anti-floating and flooding of the pigments		●
NUOSPERSE® FX 7600W	Polymeric	"Universal dispersant for all kind of pigments; good colour strength development and stabilisation of carbon black pigments. Preferable for resin-containing pigment preparations"	• Excellent color development • Low foaming • Anti-floating and flooding of the pigments		●
NUOSPERSE® FX 605	Polycrylic (NaOH-neutralized)	For hydrophilic pigments and extenders used in paints and coatings with increased solids content for VOC compliant systems.	• VOC-free, Ammonia-free • Narrow distribution of polymer molecular mass • Insensitive to hydrolysis		●
NUOSPERSE® FX 631	Hydrophobic copolymer (NaOH-neutralized)	General purpose dispersant for coatings and inorganic pigment dispersions. Good compatibility with NiSAT's. Hydrophobic, (NaOH-neutralized).	• High efficient dispersant for inorganic pigments • Superior color properties, color strength • Very good storage stability		●
NUOSPERSE® FX 665	Hydrophobic copolymer (ammonia-neutralized)	Hydrophobic dispersant with excellent water resistance for waterborne industrial and high performance deco paints. Hydrophobic (ammonia-neutralized).	• Outstanding water resistance properties • Reduced foaming • Excellent wet adhesion and early blister resistance		●
NUOSPERSE® FX 610	Multi-functional polymer	Highly effective pigment dispersing agent for use primarily in VOC compliant waterborne architectural coatings, pigment pastes and colorants.	• Optimized stabilization against pigment flocculation • Improved pigment wetting • Excellent compatibility with a wide range of binders		●
NUOSPERSE® FN 270	Nonionic surfactant	Wetting agent for pigments and fillers with low foam stabilization, hydrophilic. Specifically for architectural paint systems.	• Universal and efficient pigment wetting and dispersing properties • Improves paint storage stability • Improves colorant acceptance and increases tinting strength		●
NUOSPERSE® 2008	Anionic surfactant	Universal pigment dispersant for carbon blacks and organic pigments for water based and non-aqueous systems.	• Strongly reduces surface tension -speeds up wetting of the pigments • Improved color development • Reduces rub-up and color float	●	●
SUPREAD™ 3410	Polysiloxane	A low foaming silicone-based wetting agent with a unique branch structure and precise hydrophilic control.	• Superior substrate wetting • Minimal foaming • Efficient static surface tension reduction • Low VOC and PFAS replacement		●



FUNCTIONAL EXTENDERS

Elementis' unique talc extenders are designed to elevate the quality and performance of your products, ensuring they meet your customers' specific requirements.

Key advantages:

- **Flotation extraction process:** This method guarantees talc of consistent, high quality – essential for superior product performance.
- **Barrier properties:** The talc enhances stain, scrub, and weather resistance, providing robust protection in various applications.
- **Color consistency:** Our functional extenders ensure that the color remains consistent across coating batches, preserving the aesthetic integrity of your products.

Product name	Chemistry	Description
FINNTALC M04SLC	Pure, high whiteness talc with fine particle size, compacted	Optimum talc for partial replacement of TiO ₂ and for thin layer coatings. Talc is compacted to avoid dusting.
FINNTALC M05SL	Pure, high whiteness talc with fine particle size	Suitable for thin layer coatings and varnishes with high whiteness requirements. Can be used also in inks and in color pastes.
FINNTALC M15	Pure, highly hydrophobic talc with medium particle size	Universal talc for architectural coatings for interior and exterior applications.
FINNTALC M15 ULM	Pure, bacteria-controlled talc with medium particle size	Talc for zero and low biocide containing coatings (anti-allergic and high hygienic coatings).
FINNTALC M15SL	Pure, high whiteness, highly hydrophobic talc with medium particle size	Universal talc for high whiteness architectural coatings for interior and exterior applications.
FINNTALC M30SL	Pure, highly hydrophobic talc with coarse particle size	Talc for matt architectural coatings.
MICROTALC IT EXTRA	Pure, super high whiteness talc with fine particle size	Good for coating applications with thin layer thicknesses and super high whiteness requirements.

DEFOAMERS, COALESCENT AGENTS, AND OTHER SPECIALTY ADDITIVES

Elementis' range of specialty additives, including defoamers and coalescent agents, is specially formulated for aqueous architectural coating applications. These high-performance products are designed to improve the efficiency of your production process and ensure the highest-quality finishes.

Product name	Chemistry	Description	Key benefits	Solventborne	Waterborne
DAPRO® DF 17	Blend of hydrophobic silica and mineral oil	Universal defoamer, can be used in all water based paints and decorative coatings and is suitable for a broad range of latex systems.	• VOC free • Good compatibility • Suitable for a wide range of applications		•
DAPRO® DF 21	Blend of hydrophobic silica, emulsifiers and mineral oil	This water dispersible defoamer is suitable in high quality waterborne coatings. Particular very useful for glossy wood paints and clear acrylic coatings.	• Excellent defoaming properties • Outstanding gloss performance • Perfect for glossy paints based on acrylic and PU chemistries		•
DAPRO® DF 38	Blend of mineral oil based hydrophobic silica and other foam breaking agents.	DAPRO® DF 38 imparts excellent foam control in paints and coatings. It is particularly effective across a wide range of binder systems in providing rapid bubble break at low concentrations.	• Excellent defoaming properties • Outstanding overall gloss performance for clear wood coatings • Suitable for a wide range of applications		•
DAPRO® DF 52	Blend of esters, hydrophobic silica and emulsifiers	DAPRO® DF 52 has excellent defoaming properties providing rapid bubble break and excellent persistence. DAPRO® DF 52 is particularly suitable in systems where mineral oils are unacceptable.	• Suitable for mineral oil-free systems • Outstanding overall gloss performance for clear wood coatings • Suitable for a wide range of applications		•
DAPRO® BIO 9910	Fine dispersion of wax in vegetable oil	A liquid vegetable oil based defoamer based on 96% biobased renewable content, C14 verified. For universal waterborne applications.	• Vegetable composition to replace mineral oil defoamers • Excellent defoaming properties • Universal use for millbase and letdown process • Universal use for different chemistries - pigmented and non-pigmented		•

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NOTE:

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ELEMENTIS

A collection of laboratory glassware including a beaker, a graduated cylinder, a test tube, a conical flask, and a round-bottom flask, all containing a vibrant blue liquid. The glassware is arranged on a reflective surface, creating clear reflections. The background is a solid, light blue color.

Unique chemistry,
sustainable solutions