Siltech is a privately owned business, managed and operated by its owners for more than 30 years. We hope and believe that the pride we feel in this company channels its way through each of our employees and to every customer. Siltech is a place where someone answers the phone when you call. It is a place where we feel passionate about the quality of our products and realize that our livelihood depends on satisfying you, our customer. Siltech is a place where you can source products with confidence.

Siltech develops and manufactures a full line of organo-functional silicone compounds and related specialties for a wide range of industrial and personal care applications, using our patented and otherwise proprietary technologies. Our expertise in specialized organo-modified silicone polymers has resulted in more than 40 patents. We always strive to create new materials with unique performance properties that are as yet unavailable.

Siltech owns and operates two manufacturing plants in the Greater Toronto Area. These plants are equipped with efficient, large-scale, high-temperature and pressure reaction, thin film evaporators and other modern equipment required in such unit processes as equilibration, hydrosylilation, quaternization, amidation, phosphation, esterification and homogenization. Siltech is ISO 9001:2015 certified.

Siltech serves a wide range of industries, such as personal care, urethane foam, inks and coatings, plastics and polymers, car care, textiles, automotive, oil and gas, MRI, water treatment, leather, mining and composites. Change is truly the only constant in business, and Siltech understands and embraces the need to ride this wave of change.

While these existing silicones-using industries evolve, and additional uses are identified and developed, newer industries to silicones, such as 3D printing, smart coatings, and oil and gas, are finding that many problems can be solved with creative new silicones. Siltech’s philosophy is to constantly innovate and create new products that provide you with enabling solutions to your problems. Siltech invests a substantial portion of our resources into R&D and new product development.

Our R&D and technical service laboratories are modernly equipped and staffed by chemists with many decades of experience in diverse segments of the chemical processing industry. In addition, we have efficient pilot plant facilities available to produce special products for your experimental needs.

Siltech’s commercial products are approved for use in most global jurisdictions. Siltech is committed to such compliance, and we have dedicated personnel to ensure this. We have pre-registered our current commercial products with European REACH legislation, develop and issue the Globally Harmonized System of safety data sheets, and continue to work with our suppliers and customers to meet implementation deadlines.

We are proud of the quality of the products described in this brochure. Most are available from stock on short notice. However, we will gladly manufacture other homologues to minimum order. Many problems, old and new, can be solved with new silicone specialties. We welcome the opportunity to partner with customers, as we believe that this results in the most creative formulator-friendly and cost-effective silicone specialties possible.

Siltech Industry Applications

- Oil & Gas
- Personal Care
- Leather & Textiles
- Household & Industrial
- Paints, Inks & Coatings
- Polyurethane Foam
- pulp & Paper
- Automotive & Transportation
- Composites
- Agriculture & Life Sciences
- 3D Printing
- Personal Care

Siltech Commercial and Support Staff

- Personal Care Team
- Industrial Team

Innovative Silicone Specialties

1. We All Use Silicones Every Day
2. Environmental Awareness & Sustainability
3. Research & Development
4. Oil & Gas
5. Household & Industrial
6. Polyurethane Foam
7. Automotive & Transportation
8. Composites
9. Agriculture & Life Sciences
10. Personal Care
11. Leather & Textiles
12. Paints, Inks & Coatings
13. Pulp & Paper
14. 3D Printing

While these existing silicones-using industries evolve, and additional uses are identified and developed, newer industries to silicones, such as 3D printing, smart coatings, and oil and gas, are finding that many problems can be solved with creative new silicones. Siltech’s philosophy is to constantly innovate and create new products that provide you with enabling solutions to your problems. Siltech invests a substantial portion of our resources into R&D and new product development.

Our R&D and technical service laboratories are modernly equipped and staffed by chemists with many decades of experience in diverse segments of the chemical processing industry. In addition, we have efficient pilot plant facilities available to produce special products for your experimental needs.

Siltech’s commercial products are approved for use in most global jurisdictions. Siltech is committed to such compliance, and we have dedicated personnel to ensure this. We have pre-registered our current commercial products with European REACH legislation, develop and issue the Globally Harmonized System of safety data sheets, and continue to work with our suppliers and customers to meet implementation deadlines.

We are proud of the quality of the products described in this brochure. Most are available from stock on short notice. However, we will gladly manufacture other homologues to minimum order. Many problems, old and new, can be solved with new silicone specialties. We welcome the opportunity to partner with customers, as we believe that this results in the most creative formulator-friendly and cost-effective silicone specialties possible.

Siltech Commercial and Support Staff

- Personal Care Team
- Industrial Team

Innovative Silicone Specialties

1. We All Use Silicones Every Day
2. Environmental Awareness & Sustainability
3. Research & Development
4. Oil & Gas
5. Household & Industrial
6. Polyurethane Foam
7. Automotive & Transportation
8. Composites
9. Agriculture & Life Sciences
10. Personal Care
11. Leather & Textiles
12. Paints, Inks & Coatings
13. Pulp & Paper
14. 3D Printing

While these existing silicones-using industries evolve, and additional uses are identified and developed, newer industries to silicones, such as 3D printing, smart coatings, and oil and gas, are finding that many problems can be solved with creative new silicones. Siltech’s philosophy is to constantly innovate and create new products that provide you with enabling solutions to your problems. Siltech invests a substantial portion of our resources into R&D and new product development.

Our R&D and technical service laboratories are modernly equipped and staffed by chemists with many decades of experience in diverse segments of the chemical processing industry. In addition, we have efficient pilot plant facilities available to produce special products for your experimental needs.

Siltech’s commercial products are approved for use in most global jurisdictions. Siltech is committed to such compliance, and we have dedicated personnel to ensure this. We have pre-registered our current commercial products with European REACH legislation, develop and issue the Globally Harmonized System of safety data sheets, and continue to work with our suppliers and customers to meet implementation deadlines.

We are proud of the quality of the products described in this brochure. Most are available from stock on short notice. However, we will gladly manufacture other homologues to minimum order. Many problems, old and new, can be solved with new silicone specialties. We welcome the opportunity to partner with customers, as we believe that this results in the most creative formulator-friendly and cost-effective silicone specialties possible.
Silicone – it’s hard to imagine everyday life without this incredibly abundant and versatile resource. In its original form, silica, better known as quartz, is a common component of everyday sand. Science has discovered how to alter its molecular structure, in many different ways, to create a variety of customizable polymers as synthetic solutions used in so many everyday consumer and commercial products. Let’s explore some of the possibilities.

Silicone literally surrounds you!

When thinking about silicone items in your home, you would probably first look in the kitchen. Popular items such as non-stick cooking pan, spatula, cupcake holders and an endless number of baking utensils and accessories typically contain silicones. There are many other items in your home that you’re probably not aware also contain silicones or silicone additives. All of these help improve our everyday lives.

You could even be wearing it!

Silicone is used in a variety of makeup, cleansers, shampoo, haircare and even your running shoes. You can also find silicones everywhere you touch or look at it right now! Silicone plays a huge part in the electronics industry, as every electronic device contains integrated circuits made of silicon chips called “wafers.”

Silicones are prevalent in your office contain silicones. Most of your stuff looks better because of it!

In addition, you can find silicones in a variety of household cleaners and polishers to help achieve longevity, uniformity and water resistance. They are used to improve strength, resilience and workability and provide brilliance of colour. Silicones enable new techniques to help achieve lasting with perfect paint coverage, an item that isn’t covered with paint or even your dashboard, car seats and upholstery are made with the help of silicones. Engine parts, drive trains and tires last longer, and overall maintenance is less costly when silicones are used.

Silicone adhesives and coatings ensure that your vehicle’s exterior is more resistant to rain, wind, salt, abrasion, UV radiation and road chemicals. Even windshield wiper fluids, oils and lubricants contain silicones. Your dashboard, car seats and upholstery are made with the help of silicones. Engine parts, drive trains and tires last longer, and overall maintenance is less costly when silicones are used.

Your roof and everything under it

Building and construction materials such as concrete, glass, granite, steel, plastics and even bricks contain silicones, enabling them to work better and last longer.

Your hardwood floors, beautiful furniture, area rugs, insulation and backyard cedar patio can endure weather, time and everyday traffic. Protective coatings provide scratch resistance and many other enhanced properties. Silicone additives in paints and protective coatings help to achieve a rich, vibrant colour — seen on appliances, cars, machinery, road signs and even the road itself.

Most of your stuff looks better because of it.

Look around your home or where you work and you’ll be hard pressed to find an item that isn’t covered with paint or some type of protective coating. That’s because we all want our stuff to look great and last a long time.

Silicones in paint and protective coatings help to achieve a memorable application that is easier to clean, work with and you’ll be hard pressed to find an item that isn’t covered with paint.

Most of your stuff looks better because of it.

Silicones are prevalent in your refrigerator, stove and many other appliances, as they have unique properties that make them suitable in these applications. Silicones have no odour and can go from the freezer to the oven, microwave or dishwasher without affecting the quality of the product or the food they touch.

The household cleaners and problem solvers you use to clean your appliances and furniture contain silicones to protect, enhance and help you apply them with ease.

Innovative Silicone Specialties
Sustainability pervades our decisions, both strategically and tactically. We believe that every person and every company needs to consider their impact on our planet. Everything we do has implications for other people, and for all of the animals and plants that also call Earth home.

While it is unrealistic to completely eradicate all actions potentially negatively impacting our environment, we need to control our actions thereby reducing our impact.

In fact, today’s consumers are very concerned about how the chemicals they use potentially negatively impact the environment. This includes the impact on the environment during the manufacturing of chemicals, during the use of those chemicals, and any residual effects arising from the disposal of the finished products.

Of critical importance are the chemicals’ effects on the environment and the time it takes for them to degrade. Siltech’s commitment to the environment is strong. As a Canadian corporation, we adhere to and go beyond the highly stringent requirements of the Canadian Environmental Protection Act. We strive to continually invest in modernizing and improving our facilities to achieve the most efficient manufacturing and waste stream management processes possible.

Siltech advocates and follows the three pillars of sustainability: Environmental, Social and Economic.

Environmental Awareness & Sustainability

Siltech is committed to our planet. We believe that every person and every company needs to consider their impact on our planet. As a manufacturer of chemical products, Siltech is acutely aware of our consumption of energy, water and other resources.

We will endeavor to produce goods more efficiently, using less water and energy, and using fewer harmful chemicals by investing in and installing a large proportion of our profits each year into modernizing our facilities to achieve the most efficient manufacturing and waste stream management processes possible, developing processes that use few, if any, harmful raw materials, and using sophisticated methods to capture any harmful byproducts to make sure they are not released into the environment.

Siltech strives to create products that can be used by our customers in producing more environmentally friendly and products. This is achieved by creating new siloxanes that can be used to make new environmentally friendly products, enabling customers to reduce their use of harmful chemicals either by replacing them with our silicones or by improving their manufacturing processes.

Wherever possible, Siltech will strive to minimize pollution and waste, conserve energy and water, protect habitat, support renewable energy resources, buy environmentally friendly products, and encourage environmentally preferable transportation. Specifically, when economically feasible, we will identify and purchase environmentally preferable supplies and services for all of our daily operational needs and for company events, and encourage contractors and suppliers serving or otherwise acting on behalf of the organization to meet our standards of environmental performance.

Employee understanding and involvement are essential to the implementation of our policy. Therefore, all employees will receive a copy of this policy and be educated about our company’s efforts to improve our environmental performance. Employees at all levels of the company will be involved in supporting our goals.

As our customers’ and consumers’ needs change and there is an increasing demand for more environmentally safe and efficient products, Siltech will continue to lead the way with the introduction of additional products and technologies to meet these needs. This is good not only for Siltech, but for everyone who calls Earth home.
INNOVATION CREATES SOLUTIONS

Everyone claims to be innovative and to like to partner. The difference is we actually do it every day. It’s our norm!

Siltech is an innovation company

We have built our business and reputation on creating new silicones for new customers with new applications. Our R&D, Technical Service and Process R&D laboratories are modern, well-equipped, co-located with our manufacturing facilities, and staffed with first-class chemists and engineers.

These scientists have years of experience in synthesis and key applications such as personal care, polyurethane foam stabilization, inks and coatings, and silicone gel formulation. Our inhouse analytical labs support the quality of our manufactured products as well as new-product development and technical service.

Our track record of innovation and outside-the-box problem solving is demonstrated by our broad portfolio of product types. Our early history as an organic surfactant company gives us a different perspective from the other silicone manufacturers and results in classic organic surfactant derivations to silicone, such as our Silamine®, Silphos® and Silquat® products. All are commercial grades.

We are continually adding chemists and the latest equipment to make sure our R&D capabilities support all of your needs. Our typical approach is to develop products directly with our customers. We are very willing to work closely with your chemists to develop structure property understandings.

Our commercial reactors are engineered to give the same product irrespective of the required scale, so we have relatively small minimum volume requirement limitations to commercialize a new variation. In fact, over 25% of our production today is used for single-customer products, further demonstrating our commitment to partnership.

Siltech’s silicones are manufactured in Ontario, Canada. Each of our state-of-the-art facilities is equipped with dedicated large-scale reactors utilizing our novel hydrosilation manufacturing process technology. To ensure the consistent production of the highest-quality products, we employ advanced in-process controls to prevent variations.

New control systems have been installed in our Toronto plant to bring it up to the standards of our Mississauga plant. We combined the best of both locations. With reactors ranging in size from 20 kg to 30,000 kg, we have the flexibility to support our growth strategy of introducing new innovative products and the capacity to address your needs. Our highly skilled and experienced manufacturing teams take great pride in the quality and purity of our products. We make sure they are the best in the industry.

We also have an advanced analytical laboratory, which features the latest instrumentation. Finally, our technical service laboratory is equipped to completely evaluate the performance of our products in various end-use applications. We are proud of Siltech’s extensive product range as well as our capability to supply products that are specifically tailored to our customers’ needs. We are enthusiastic about our ability to provide knowledgeable technical service and to remain in the forefront of silicone technology. By working closely with our customers, Siltech has also created many products that are unique and exclusively used by these customers.

As the industry continues to evolve, new applications and improvements are continuously needed to meet and exceed customers’ expectations. In addition to our products offered, Siltech also welcomes the opportunity to work with customers to develop unique silicones for specific applications.
Drilling and lubrication
Siltech offers a diverse product line of proven liquid and lubricating additives engineered to improve oil and gas drilling efficiency, and profitability.

Choosing the right additives for drilling processes is critical to maintain efficient, maintenance-free production and reduced, experience downtime.

Siltech has developed an extensive line of environmentally-friendly silicone additives that improve insulation issues, coating and sealing of mechanical gears and parts, and electrical components and lubrication of any valves, all of which assist in improving production and drilling efficiency.

Effectively formulated additives can dramatically elevate the performance of drilling equipment, by producing machinery, reducing damaging vibrations, preventing leaking and anti-sticking. In extreme and unpredictable environmental conditions associated with drilling, silicone additives provide the additional protection oil and gas processors require 24 hours a day.

Production and refining
The process of separating and refining crude oil is challenging and complex and needs to be done efficiently, cost-effectively and as quickly as possible for market availability. Refining production processes must work seamlessly with a variety of other chemicals during the production process.

Production-ready high-performance fluids, demulsifiers, surfactants, PDMS (polydimethylsiloxane) fluids, process aids, resin modifiers and demulsifiers are essential throughout the refining process, if maximum efficiency and continued production are maintained.

Siltech has developed several effective solutions engineered to meet and exceed the performance needs of downtime cement requirements.

High-grade well drilling cement additives
Cementing is necessary to long-term performance and critical to maintain competitiveness for every oil and gas well. Siliceous additives play an important role in the installation and maintenance of downhole cementing.

Siltech has developed several effective solutions engineered to meet and exceed the performance needs of downtime cement requirements.

Adaptable foam control management
Siltech foam control additives are used in drilling fluids to reduce surface tension, add lubricity into the mud, thus defoaming and eliminating air in the drilling fluid.

Siltech foam control solutions are critical to your process and profitability, as well as enhanced safety, drilling efficiency, reduced waste and energy consumption. Silicones provide particularly effective foam control properties that enhance productivity and process reliability, preventing cavitations (bubbles or liquids that cause harmful implosions in pumps), and therefore contribute to reducing wear and tear, costly maintenance and production downtime.

Effective defoamers add the cementing process with reduced foam generation and air inclusions, enhanced handling properties, stronger integrity and long-term durability of the cement materials.

Effective fluid additives provide the cementing process with reduced foam generation and air inclusions, enhanced handling properties, stronger integrity and long-term durability of the cement materials.

Siltech foam control additives are used in drilling fluids to help drill holes through the ground and rock. Drilling fluids help lubricate expensive drilling bits as well as sand crusts, debris to the surface, where it is then removed. An unwanted side effect of the process is that once debris reaches the surface, it reacts with air and creates foaming.

Siltech foam control additives are used in drilling fluids to reduce surface tension, add lubricity, reduce oxygen content in the fluids and, in turn, reduce foam formation. Silicone formulations are used to lower this surface tension and introduce lubricity into the mud, thus defoaming and eliminating air in the drilling fluid.

Adaptive foam control management
Siltech foam control additives are used in drilling fluids to help drill holes through the ground and rock. Drilling fluids help lubricate expensive drilling bits as well as sand crusts, debris to the surface, where it is then removed. An unwanted side effect of the process is that once debris reaches the surface, it reacts with air and creates foaming.

Siltech foam control additives are used in drilling fluids to reduce surface tension, add lubricity, reduce oxygen content in the fluids and, in turn, reduce foam formation. Silicone formulations are used to lower this surface tension and introduce lubricity into the mud, thus defoaming and eliminating air in the drilling fluid.

Adaptive foam control management
Siltech foam control additives are used in drilling fluids to help drill holes through the ground and rock. Drilling fluids help lubricate expensive drilling bits as well as sand crusts, debris to the surface, where it is then removed. An unwanted side effect of the process is that once debris reaches the surface, it reacts with air and creates foaming.

Siltech foam control additives are used in drilling fluids to reduce surface tension, add lubricity, reduce oxygen content in the fluids and, in turn, reduce foam formation. Silicone formulations are used to lower this surface tension and introduce lubricity into the mud, thus defoaming and eliminating air in the drilling fluid.

Adaptive foam control management
Siltech foam control additives are used in drilling fluids to help drill holes through the ground and rock. Drilling fluids help lubricate expensive drilling bits as well as sand crusts, debris to the surface, where it is then removed. An unwanted side effect of the process is that once debris reaches the surface, it reacts with air and creates foaming.

Siltech foam control additives are used in drilling fluids to reduce surface tension, add lubricity, reduce oxygen content in the fluids and, in turn, reduce foam formation. Silicone formulations are used to lower this surface tension and introduce lubricity into the mud, thus defoaming and eliminating air in the drilling fluid.

Adaptive foam control management
Siltech foam control additives are used in drilling fluids to help drill holes through the ground and rock. Drilling fluids help lubricate expensive drilling bits as well as sand crusts, debris to the surface, where it is then removed. An unwanted side effect of the process is that once debris reaches the surface, it reacts with air and creates foaming.

Siltech foam control additives are used in drilling fluids to reduce surface tension, add lubricity, reduce oxygen content in the fluids and, in turn, reduce foam formation. Silicone formulations are used to lower this surface tension and introduce lubricity into the mud, thus defoaming and eliminating air in the drilling fluid.

Adaptive foam control management
Siltech foam control additives are used in drilling fluids to help drill holes through the ground and rock. Drilling fluids help lubricate expensive drilling bits as well as sand crusts, debris to the surface, where it is then removed. An unwanted side effect of the process is that once debris reaches the surface, it reacts with air and creates foaming.

Siltech foam control additives are used in drilling fluids to reduce surface tension, add lubricity, reduce oxygen content in the fluids and, in turn, reduce foam formation. Silicone formulations are used to lower this surface tension and introduce lubricity into the mud, thus defoaming and eliminating air in the drilling fluid.

Adaptive foam control management
Siltech foam control additives are used in drilling fluids to help drill holes through the ground and rock. Drilling fluids help lubricate expensive drilling bits as well as sand crusts, debris to the surface, where it is then removed. An unwanted side effect of the process is that once debris reaches the surface, it reacts with air and creates foaming.

Siltech foam control additives are used in drilling fluids to reduce surface tension, add lubricity, reduce oxygen content in the fluids and, in turn, reduce foam formation. Silicone formulations are used to lower this surface tension and introduce lubricity into the mud, thus defoaming and eliminating air in the drilling fluid.

Adaptive foam control management
Siltech foam control additives are used in drilling fluids to help drill holes through the ground and rock. Drilling fluids help lubricate expensive drilling bits as well as sand crusts, debris to the surface, where it is then removed. An unwanted side effect of the process is that once debris reaches the surface, it reacts with air and creates foaming.

Siltech foam control additives are used in drilling fluids to reduce surface tension, add lubricity, reduce oxygen content in the fluids and, in turn, reduce foam formation. Silicone formulations are used to lower this surface tension and introduce lubricity into the mud, thus defoaming and eliminating air in the drilling fluid.

Adaptive foam control management
Siltech foam control additives are used in drilling fluids to help drill holes through the ground and rock. Drilling fluids help lubricate expensive drilling bits as well as sand crusts, debris to the surface, where it is then removed. An unwanted side effect of the process is that once debris reaches the surface, it reacts with air and creates foaming.

Siltech foam control additives are used in drilling fluids to reduce surface tension, add lubricity, reduce oxygen content in the fluids and, in turn, reduce foam formation. Silicone formulations are used to lower this surface tension and introduce lubricity into the mud, thus defoaming and eliminating air in the drilling fluid.

Adaptive foam control management
Siltech foam control additives are used in drilling fluids to help drill holes through the ground and rock. Drilling fluids help lubricate expensive drilling bits as well as sand crusts, debris to the surface, where it is then removed. An unwanted side effect of the process is that once debris reaches the surface, it reacts with air and creates foaming.

Siltech foam control additives are used in drilling fluids to reduce surface tension, add lubricity, reduce oxygen content in the fluids and, in turn, reduce foam formation. Silicone formulations are used to lower this surface tension and introduce lubricity into the mud, thus defoaming and eliminating air in the drilling fluid.

Adaptive foam control management
Siltech foam control additives are used in drilling fluids to help drill holes through the ground and rock. Drilling fluids help lubricate expensive drilling bits as well as sand crusts, debris to the surface, where it is then removed. An unwanted side effect of the process is that once debris reaches the surface, it reacts with air and creates foaming.

Siltech foam control additives are used in drilling fluids to reduce surface tension, add lubricity, reduce oxygen content in the fluids and, in turn, reduce foam formation. Silicone formulations are used to lower this surface tension and introduce lubricity into the mud, thus defoaming and eliminating air in the drilling fluid.

Adaptive foam control management
Siltech foam control additives are used in drilling fluids to help drill holes through the ground and rock. Drilling fluids help lubricate expensive drilling bits as well as sand crusts, debris to the surface, where it is then removed. An unwanted side effect of the process is that once debris reaches the surface, it reacts with air and creates foaming.

Siltech foam control additives are used in drilling fluids to reduce surface tension, add lubricity, reduce oxygen content in the fluids and, in turn, reduce foam formation. Silicone formulations are used to lower this surface tension and introduce lubricity into the mud, thus defoaming and eliminating air in the drilling fluid.

Adaptive foam control management
Siltech foam control additives are used in drilling fluids to help drill holes through the ground and rock. Drilling fluids help lubricate expensive drilling bits as well as sand crusts, debris to the surface, where it is then removed. An unwanted side effect of the process is that once debris reaches the surface, it reacts with air and creates foaming.

Siltech foam control additives are used in drilling fluids to reduce surface tension, add lubricity, reduce oxygen content in the fluids and, in turn, reduce foam formation. Silicone formulations are used to lower this surface tension and introduce lubricity into the mud, thus defoaming and eliminating air in the drilling fluid.

Silicone enhanced rubber
Silicone rubber adds are essential ingredients in all phases of oil and gas extraction and production; however, other materials chemically bonded with various silicone properties are also an important and critical component of the oil and gas industry. Silicone rubber products are essential to a continual production environment, and are found everywhere throughout all phases of drilling from refinement.

Silicone rubber has many appealing properties and features that make it perfect for the oil and gas industry. It includes flexible features and high resistance to extreme environmental conditions, such as moisture, heat and cold.

Silicone rubber in additive form provides an impressive stability and longevity and can be moulded to accommodate a variety of shapes and sizes. This highly-metastic substance doesn’t react with most chemicals and is resistant to UV light and ozone deterioration.

The prolific use of rubber gaskets provides controlling by preventing metal-to-metal contact, reduced damage risk by minimizing movement from vibrations, and flexible seating properties in highperformance applications for extreme pressure seals, orings, gaskets and machinery clamps.

Silicone adhesive technology, partnered with the abundance of unique rubber properties, translates to longer, maintenance-free, cost-effective production.

For a full list of additives, go to: siltech.com/application/oil-and-gas.
Siltech provides your business and home with proven innovative cleaning solutions.

**Improving industrial and institutional cleaning solutions**

Siltech's industrial cleaning additive solutions are customized for a variety of product applications. The development of effective cleaning products is imperative when commercial applications demand high-performance innovative products that need to perform in a variety of working environments.

Industrial cleaning solutions are also scrutinized by rigid compliance regulations, so formulations must also follow specific and current industry standards. Siltech offers optimum performance, solutions for fabric finishing equipment, machinery, institutional and educational facilities, and airports.

Siltech's expertise in providing formulation improvements for laundry care detergents, conditioners, fabric care and fragrance features helps make products stand out in a crowded shelf among competitive offerings. Ensuring appropriate cleaning of fabrics is a priority, but consumers also seek multifunctional features, such as soft, thread-well clothes, durability and comfortable feel, and long-lasting robust colours.

**Defoamers and antifoams for diverse applications**

Consumers are often critical of the quality of a detergent based on the foam it generates. That's why Siltech formulators offer the right antifoam customized solution for each of your applications. Siltech offers antifoam compounds, emulsions and powders for powder detergents and various liquid detergent formulations, and antifoam systems. Each solution is tailored to control foam properties and provide additional benefits for all your applications.

Siltech's solutions offer a wide range of foam, medium and high foaming surfactants that are also designed to improve cleaning performance and are created to provide multifunctional properties in one product. Foaming control additives are also used extensively in industrial as well as manufacturing environments. Some of the more common processes are food processing, chemical manufacturing, fermentation, textile, adhesive manufacturing, printing inks, paints, and coatings, and wastewater management.

Most of the objects that surround us in our daily lives would not be here without the use of foam control during manufacturing. Siltech offers a diverse product line of surfactants, as well as customizable high-performance additives for a wide range of end-user formulations. The product line offering includes cleaners and polishes for hard surfaces, and hand and automated soap additive solutions for industrial, institutional and household product applications.

**Silicones are widely used as defoamers and antifoams in a variety of household and commercial products. Paper products, paints and coatings, water treatment, cleaning fluids for your home and many industrial applications benefit from silicone defoamer technology. Siltech offers a range of defoamers, which include basic emulsions of hydrophilized silicas as well as specialized silicone polyethers that are effective in many demanding and also sensitive applications.**

**Delivering Protection and Attractive Finishes**

Consumers equate attractive finishes with high quality, so product surfaces require visually appealing finishes and robust, lasting protection.

An effectively formulated silicone-based additive for cleaners and polishers provides protection conditions in impacting cleaning properties, and is user friendly to implement. Some specialized silicones even prevent dirt and dust, and have antimicrobial capabilities.

Siltech can provide the expertise and customizable formulations required for a multitude of systems.
Polyurethane packing solutions keep it safe

At some point we’ve all opened up a newly delivered shipping pallet with our new clothes inside, safely protected by perfectly fit protective polyurethane foam. Polyurethane packaging foam provides cost-effective, custom, form-fitting cushioning to uniquely and securely protect items that need to stay safely in place during transit.

One particular process begins as a two-component liquid, which, after being mixed and poured into a bag or box, slowly expands into a rigid foam that can be hard or soft and customisable, which is why polyurethane products are an excellent choice for builders and consumers.

Polyurethane rigid foam has unique insulating properties that are perfect for walls and roofs for new homes and when remodelling an existing home. With the insulating quality, and value, of rigid foam, it is high, and it helps builders make walls thinner, reduces construction costs, and, at the same time, reduce noise levels.

The insulating quality, and value, of rigid foam is high, and it helps builders make walls thinner, reduces sound, retains winter and summer inside temperatures, reduces construction costs, and ultimately creates more living or working space. Polyurethane insulating products are also often structurally self-supporting and can be attached to a wide range of substrates while requiring no additional adhesive.

Sprayed polyurethane foam provides weatherproof, warm, comfortable and durable insulation to residential and commercial buildings. Polyurethane rigid foam is a versatile material needed to achieve energy efficient ratings in consumer and commercial refrigerators and freezers. It helps to simply and efficiently maintain the temperature you need. Refrigerators and freezers are constructed with a dense air-tight, closed cell foam that is both structural and on insulating material. Polyurethane rigid foam is an important component in major appliances that consumers desire and to protect appliances from rust and heat.

Polyurethane rigid foam has high insulating properties and can be applied in a variety of ways. Polyurethane rigid foam can be spray-applied to various substrates or be moulded into special shapes in large sizes.

In addition to their practical uses, polyurethane building materials add innovative comfort, proven protection, and high performance specifications can be measurably altered.

Flexible foam offers several important features to furniture manufacturers and consumers: comfort, durability, support, and health and safety.

While this type of foam may appear to be a simple product, it’s actually very complex. It is made up of almost infinite variety of properties and forms. Flexible foam’s unique chemistry has made it possible to make almost any type of foam, for just about any application.

Polyurethane foam technology has proven time and again that it can recover almost all of its original shape after being compressed for extended periods. Unlike any other cushioning material, flexible foam’s many qualities can be measured and easily modified during manufacturing. Density, surface texture, compression, resilience, support, surface feel, handling strength, height and firmness, retention can be measurably altered.

No other cushioning material’s performance specifications can be so closely identified and monitored. Polyurethane foam provides cost-effective, custom, form-fitting cushioning to uniquely and securely protect items that need to stay safely in place during transit.

Flexible foam solutions for all of your specific manufacturing needs. for a full list of additives, go to siltech.com/application/polyurethane
Silech silicone additives are the perfect choice for automotive applications as they exhibit resistance to extreme temperature ranges, varying humidity, UV rays, abrasion, water tightness and ozone.

Silech has customizable solutions for a wide range of materials used in aircraft component sealing and in electrical and mechanical components — from the cargo area through to the cockpit.

Protect your vehicle with Silech formulations

As the automotive industry continues to evolve, consumers and businesses are continually looking for feedback such as improved performance, power and reduced maintenance in their vehicles. Silech offers a variety of customized additive formulations designed to enhance manufacturing processes for superior tooling protection and automotive maintenance.

Silicone additives extend a vehicle’s service life and can be found under the hood of every vehicle, in the engine, drives, electronics and all systems, interiors and even bodywork. With help from silicone additives, exteriors are more resistant to wear, salt, solar abrasion, UV radiation and chemicals. Joints and pretty much anything that moves will incur less wear and last longer when silicones are employed.

Overall vehicle maintenance is less frequent and less costly as a result of creative formulating with silicone additives. These additives protect against aggressive substances, even in intense heat, and act as sealers, adding protection to vibration dampers, condensers and radiators, engine gaskets, headlamps, hydraulic bearings, ignition cables, radiator hoses, shock absorbers, spark plug boots and more.

Powerful additives, providing value to your end products

Polyurethane foam is an incredibly diverse material used in automatic manufacturing. In addition to the foam that makes car seats comfortable, it can be found in virtually every vehicle part, including bumpers, interior sections, the car body, spoilers, doors and windows. Silech also enable manufacturers to provide drivers and passengers reduced weight, increased fuel economy and comfort, corrosion resistance, insulation and sound absorption.

Automotive designers and manufacturers enjoy the means to produce seating that can be easily assembled, disassembled and recycled due to the reliability of polyurethane foam. Silech also meets the highest performance specifications over a wide range of flexure without added weight. Over many years of service, and even under heavy use, polyurethane foam retains its original form, shape and resilience. Airbags, headliners, cushioned instrument panels and other parts of your car’s interior are made with polyurethane foam. Silech develops a variety of customizable surfactants that are a must for improved processing, performance and quality of numerous polyurethane foam products.

Until recently, metal alloys were used for automotive exterior parts. Alloys are much more susceptible to stone chips, dings, dents and corrosion than popular polyurethane alternatives made by reaction injection moulding (RIM). The automotive industry is the largest user of RIM polyurethane parts.

Polyurethane sealants and adhesives are also used in the production of headlights, signal lights and tail lights and are often used to bond bumpers onto the vehicle. Bond strength, durability, heat and UV resistance, combined with ease of application, make polyurethane sealants by far one of the best choices for many automotive parts and components.

Tested formulations for automotive applications

The reliability and stability of silicone additives make them ideal for use in many critical areas, from gaskets to hose, windshields to window seals, cables, ignition, airbags, electrical coatings and more. In many ways, silicone formulations provide vehicles with more comfort, safety and reliability than ever before. Lubricants enhance performance and increase the durability of engines. They can be formulated to achieve the best balance between wear resistance and corrosion high temperatures with the help of silicones.

Silicone is also used upstream for a variety of car care and maintenance products. These are available for the consumer, including as resistor repellants for glass, lubrication protection and stability for a wide range of critical parts as well as interior and exterior cleaning and polishing applications.

Siltech’s organically modified solutions

Virtually every automotive paint on the market relies on silicone additives that provide powerful marketable features.

Siltech’s organo-modified silicones are developed to optimize a variety of automotive finishes and processes as an enhancement for the final product.

Reduced surface tension, excellent wetting and levelling agents, and consistent smooth, uniform application, are just a few of the benefits that silicone can provide.

Rich colours and a beautiful finish result when silicone technology is put to work to help dispense pigments yielding beautiful uniform flow and colour.

Customizable silicone resins also provide many sought after features, such as resistance to high temperatures, the ability to soak water, absorb and maintain resistance, and weathering.

Resistance to extreme heat is a required property for the production of many other heat-sensitive automotive and motorcycle parts and components.

Reliable, stable mould release coatings

Vernacular mould release coatings are a necessity in manufacturing as they help remove trees out of their tight outer shells. Silicone additive was the first silicone to be used in rubber extrusion manufacturing as they provide reduced friction, long wear life and superior traction.

MOVING FORWARD WITH SILTECH CHEMISTRY

The automotive industry is constantly innovating and demanding new high-performance applications, for both under the hood and everywhere in the vehicle. Silech maintains a diverse portfolio of formulations.
Lightweight, durable, corrosion-resistant technology

The addition of silicone additives to composites has resulted in new unique, improved features. These improvements include more robust strength and electrical resistant properties that are useful across every application.

Many harsh and corrosive manufacturing environments, including oil and gas, pulp and paper, and even asphalt and marine environments, are-refraining the advantages of composites for their manufacturing needs.

The use of corrosion-resistant materials made of silicone composites is becoming increasingly practical and more cost-effective because of their chemical resistance and unique design features. They come in a diverse selection of material options, with exceptional mechanical strength and superior flexibility design features that outperform their metal alternatives.

Siltech provides a range of customizable formulations for all of your composite requirements.

Manufacturers of recreational consumer goods depend on a variety of silicone additive formulations.

Composites with specialized silicone additives are used every day in materials for many consumer products, such as snowboards, ski, tennis rackets, golf clubs, paddle boards and protective gear.

Quality is always a priority as consumer expectation for these products is extremely high, making superior additive formulations the only choice for precision and quality control during every phase of the manufacturing process.

Composites were first used 70 years ago in the aircraft industry to help reduce overall component weight while retaining strength and durability. Twenty or so years later, technology-related silicone additives for composites were introduced to the construction industry.

Composites are used all over the world to help construct and repair a variety of applications, from infrastructure (including bridges, roads and railways) to commercial and residential construction. This inventive chemistry has rapidly revolutionized the construction industry with its unique and versatile features. Virtually no other material offers so many diverse possibilities.

Composite materials are becoming increasingly popular, especially for new-bridge construction and renovations, as they provide impressive strength-weight ratios and contain advantageous features such as non-corrosive properties, flame-retardant capabilities and design flexibility.

Silicon-formulated composite boards with most materials from concrete, glass, granite and marble to aluminum, steel and even plastics.

Composites for transforming today’s infrastructures

They are extremely durable and can resist decay caused by harsh weather conditions, moisture or sunlight and provide a number of application advantages compared to traditional materials such as steel, wood and concrete.

Longevity and maintenance costs are critical considerations when manufacturers build components for support structures such as waterfront retainers, bridge structures, electrical and utility components and even rail for concrete.

Unlike traditional infrastructure materials, composite materials provide sustainability and extended lifespan, as they don’t deteriorate, corrode or rust. Civil engineers and governments are leveraging these amazing features of composites and realize they are a practical choice for nearly any material, repair or renovation.

Siltech’s composite formulations provide valuable benefits to manufacturing processes, including reduced maintenance costs, longer life span, reduced delivery expense, installation time and cost, lightweight, and fabrication flexibility.

Siltech’s composite technology exceeds industry standards, developing next-generation formulations.

They are extremely durable and can resist decay caused by harsh weather conditions, moisture or sunlight and provide a number of application advantages compared to traditional materials such as steel, wood and concrete.

Longevity and maintenance costs are critical considerations when manufacturers build components for support structures such as waterfront retainers, bridge structures, electrical and utility components and even rail for concrete.

Uniquely, Siltech provides a range of customizable formulations for all of your composite requirements.

For a full list of additives go to siltech.com/application/composites.

The future of silicone composite formulation

Siltech’s composite technology exceeds industry standards, developing next-generation formulations.

Effective formulated composite materials need to address equipment functionality and inherent manufacturing challenges that include constant exposure to heat, friction, constant temperature fluctuations and, of course, safety.

Effective formulated composite materials need to address equipment functionality and inherent manufacturing challenges that include constant exposure to heat, friction, constant temperature fluctuations and, of course, safety.

Effective formulated composite materials need to address equipment functionality and inherent manufacturing challenges that include constant exposure to heat, friction, constant temperature fluctuations and, of course, safety.

Effective formulated composite materials need to address equipment functionality and inherent manufacturing challenges that include constant exposure to heat, friction, constant temperature fluctuations and, of course, safety.

Effective formulated composite materials need to address equipment functionality and inherent manufacturing challenges that include constant exposure to heat, friction, constant temperature fluctuations and, of course, safety.

Effective formulated composite materials need to address equipment functionality and inherent manufacturing challenges that include constant exposure to heat, friction, constant temperature fluctuations and, of course, safety.

Effective formulated composite materials need to address equipment functionality and inherent manufacturing challenges that include constant exposure to heat, friction, constant temperature fluctuations and, of course, safety.

Effective formulated composite materials need to address equipment functionality and inherent manufacturing challenges that include constant exposure to heat, friction, constant temperature fluctuations and, of course, safety.

Effective formulated composite materials need to address equipment functionality and inherent manufacturing challenges that include constant exposure to heat, friction, constant temperature fluctuations and, of course, safety.

Effective formulated composite materials need to address equipment functionality and inherent manufacturing challenges that include constant exposure to heat, friction, constant temperature fluctuations and, of course, safety.

Effective formulated composite materials need to address equipment functionality and inherent manufacturing challenges that include constant exposure to heat, friction, constant temperature fluctuations and, of course, safety.

Effective formulated composite materials need to address equipment functionality and inherent manufacturing challenges that include constant exposure to heat, friction, constant temperature fluctuations and, of course, safety.

Effective formulated composite materials need to address equipment functionality and inherent manufacturing challenges that include constant exposure to heat, friction, constant temperature fluctuations and, of course, safety.
Science researchers have discovered that silicone formulated crop additives increase a plant’s resistance to many diseases, such as mildew, septoria and eyespot, as well as a variety of insect pests.

Plants subjected to drought treated with effective formulations also maintain higher stomatal conductivity and relative water content. Treatment promotes the growth of larger and thicker leaves, thus limiting the loss of water through transpiration and reducing water consumption.

Continued use of silicone additives shows great influence on the development of plant roots, allowing better root resistance in dry soils and faster growth. Silicone additives used in agriculture are considered a modern farm technology, along with many pesticides, fertilizers and herbicides.

Customized formulations for fungicides, insecticides, antifoams and wetting agents are a necessity for healthy crops, as well as for maximizing yields while reducing crop and environmental risks.

Siltech has developed effective formulations designed to enhance wetting, penetration, improved spreadability, and performance of crop protection, as well as agricultural plant growth, foliar nutrients and health, fungicides, insecticides, and herbicide enhancement.

Siltech’s wetting agents, also known as super-wetters, allow users to enhance the performance and longevity of their herbicides by dramatically reducing the product’s surface tension. This means that, in their delivery onto the plant, herbicides are better able to both spread out evenly over the targeted leaves and penetrate the leaves. This improved efficiency also enables the user to minimize the amount of chemicals needed.

Specialized agricultural formulations are designed to meet and exceed crop challenges and provide innovative solutions for high-performance agrochemicals.

The right chemistry can improve crop science productivity, facilitate spreading and wetting performances on plants, and be used in a variety of agricultural applications.

Siltech’s foam control additives are also used for damage defense and crop protection in crop fertilizers, plant growth nutrients, herbicides, insecticides and fungicides.
Since 1989, Siltech has been actively developing materials for use in the personal care market. During this time, silicone compounds have become an increasingly important segment of products for creating innovative new applications. As formulas and products become more advanced, the understanding of the underlying properties of the increasing number of organofunctional silicones has become more difficult.

Selecting the proper silicone for a particular formulation starts with identifying the specific attributes that are desired. Once these attributes are defined, other formulation issues, such as solvent type, concentration and interaction between ingredients, need to be determined. In order to facilitate these selections, Siltech’s in-house specialists, who understand the personal care industry, and technical support staff meet your needs by matching a chemistry to the benefits your require.

Siltech offers a line of standard personal care products, along with many formulations and technical presentations. Our chemists work jointly with customers to develop specific molecules and products for individual formulation challenges. Let us help you find the right product for your specific needs.

For a full list of additives, go to siltech.com/application/personal-care.
How are silicones used in leather and textiles?

Silicone chemistry has now established itself within the textile industry and is used in the processing and final finishing of leather, technical textiles, fabrics and yarns. Silicone is used in textiles mainly for the lubrication of threads and fabrics and for foam control during processing.

Lubricants and emulsions are essential for providing improved gliding properties to thread and reducing the risk of damage and breaking during processing. They also provide the appearance of lustre and improve the overall resistance to extreme temperatures that can occur during production.

Silicones are also used to reduce foam created during textile processing. As antifoam, silicones contribute to optimizing production and maintaining peak processing. During water treatment processes, silicone additives are admitted as wetting agents and help reduce surface tension, which increases production speed. Silicone additives are also used as softeners in the multiple aqueous phases of conventional textile finishing.

This specific and versatile chemistry provides textiles and fibres excellent smooth softness or creates the multiple aqueous phases of conventional textile finishing.

Physical properties, such as tear strength, abrasion, wrinkle resistance, stretch recovery, shrinkage reduction, water absorption or water repellency, are possible with the appropriate modifier chemistry.

Silicone antifoams and defoamers can effectively reduce foam. Silicone antifoams, as process defoamers, can effectively reduce and control the formation of excessive foam.

Performance solutions for your textiles and fibres

Today’s demand for technical textiles and fibres is thriving as they are used in a long list of products. From specialized commercial applications to a diverse range of consumer goods, silicones are the reason these textiles are more innovative and versatile today than ever before.

From sportswear textiles to automobile air bags, these products require specialized silicone additives to achieve maximum utility.

Manufacturers and chemists are continuously looking for newly enhanced, high-performance treatments for textiles to help improve and create new product applications. Silicone additive chemistry is improving every day and is becoming easier to incorporate into any textile manufacturing process.

Effective silicone formulations provide exciting new and improved features such as advanced tear and wrinkle strength, improved thermal capability, fire resistance, UV stability and resistance to abrasion.

They improve overall textile integrity and durability, waterproofing, anti-slip, colour and texture versatility, and increased comfort in wear and feel.

For a full list of additives, go to siltech.com/application/leather.
Silicone enhanced building, construction and commercial coatings

Silicorns improve the performance and sustainability of cementitious building materials, such as mortars, concrete, paints and coatings. These multifunctional silicone formulations deliver outstanding performance and can reduce or eliminate construction materials processing issues. Silicone resins in protective coating formulations for building materials also significantly improve durability and resistance to moisture, corrosion, temperature extremes and weathering.

Plasterers play an important role in the construction and design of architectural facades, including structural design, surface leveling and necessary protection to mention a few. Siltech offers a variety of customizable additives for synthetic resin and calcium silicate plasters. Like architectural processes, industrial applications require metal protection. Siltech offers formulations for numerous coatings that help protect and preserve metal structural applications while providing a combination of aesthetics and functionality.

Silicone enhanced exterior coatings provide houses, commercial buildings, bridges, structural demands and even railway cars with flexibility, so they can withstand extreme temperatures without cracking. Thousand of kilometers of highways and roads surfaces can withstand considerable corrosion, from gasoline and oil stain exposure to road salt and unpredictable weather conditions. Silicone resins have the ability to seal water.

Heat resistance is an important property in paints, most obviously when they are applied to anything exposed to internal or external heat sources, such as barbecues, automotive engine parts, mufflers, and industrial and commercial exhausting systems.

Siltech’s additives provide easy application and resistance to diverse temperatures and weather conditions.

Building with Siltech Chemistry

Providing a fresh, long-lasting look, with quality paint coatings

Silicone is essential in the formulation of numerous types of paints and lacquers. From heavy duty industrial coatings to interior and exterior architectural paints, silicone chemistry additives offer protection against moisture and harmful environmental influences, and provide an important element of design.

These types of modified silicones enhance the performance of paint by migrating to its surface, so it can spread evenly over metal and plastic surfaces. The result is a mirror-like, perfectly smooth and uniform coat of paint for our cars, trains, aircrafts and bridges.

These additives reduce surface tension, raising as wetting and levelling agents, so paint is applied smoothly and evenly. Furthermore, these silicones help disperse the pigments into the paint to enhance flow and color. The result is perfect coverage and beautiful finishes with rich colors. A variety of silicone resins also provide sought after properties for specialty paints and coatings, such as resistance to high temperatures and the ability to seal out water.

For a full list of additives, go to siltech.com/application/inks-and-coatings.

Paint production additives

Printing is a major industry in every technologically advanced country. Newspapers, packaging and stationary, marketing and sales materials are the most products produced on a wide variety of printers and presses.

Silicone is essential in the formulation of numerous types of paints and lacquers. From heavy duty industrial coatings to interior and exterior architectural paints, silicone chemistry additives offer protection against moisture and harmful environmental influences, and provide an important element of design.

These types of modified silicones enhance the performance of paint by migrating to its surface, so it can spread evenly over metal and plastic surfaces. The result is a mirror-like, perfectly smooth and uniform coat of paint for our cars, trains, aircrafts and bridges.

Siltech offers silicone additives for letterpress, flexographic and offset print production as well as solutions for the varied needs of many applications.

Siltech offers silicone additives for letterpress, flexographic and offset print production as well as solutions for the varied needs of many applications.

SILTECH HAS YOU COVERED

Painting is a major industry in every technologically advanced country. Newspapers, packaging and stationary, marketing and sales materials are the most products produced on a wide variety of printers and presses.

Silicone is essential in the formulation of numerous types of paints and lacquers. From heavy duty industrial coatings to interior and exterior architectural paints, silicone chemistry additives offer protection against moisture and harmful environmental influences, and provide an important element of design.

These types of modified silicones enhance the performance of paint by migrating to its surface, so it can spread evenly over metal and plastic surfaces. The result is a mirror-like, perfectly smooth and uniform coat of paint for our cars, trains, aircrafts and bridges.

Siltech offers silicone additives for letterpress, flexographic and offset print production as well as solutions for the varied needs of many applications.

Siltech offers silicone additives for letterpress, flexographic and offset print production as well as solutions for the varied needs of many applications.

SILTECH HAS YOU COVERED

Painting is a major industry in every technologically advanced country. Newspapers, packaging and stationary, marketing and sales materials are the most products produced on a wide variety of printers and presses.

Silicone is essential in the formulation of numerous types of paints and lacquers. From heavy duty industrial coatings to interior and exterior architectural paints, silicone chemistry additives offer protection against moisture and harmful environmental influences, and provide an important element of design.

These types of modified silicones enhance the performance of paint by migrating to its surface, so it can spread evenly over metal and plastic surfaces. The result is a mirror-like, perfectly smooth and uniform coat of paint for our cars, trains, aircrafts and bridges.

Siltech offers silicone additives for letterpress, flexographic and offset print production as well as solutions for the varied needs of many applications.

Siltech offers silicone additives for letterpress, flexographic and offset print production as well as solutions for the varied needs of many applications.

SILTECH HAS YOU COVERED

Painting is a major industry in every technologically advanced country. Newspapers, packaging and stationary, marketing and sales materials are the most products produced on a wide variety of printers and presses.

Silicone is essential in the formulation of numerous types of paints and lacquers. From heavy duty industrial coatings to interior and exterior architectural paints, silicone chemistry additives offer protection against moisture and harmful environmental influences, and provide an important element of design.

These types of modified silicones enhance the performance of paint by migrating to its surface, so it can spread evenly over metal and plastic surfaces. The result is a mirror-like, perfectly smooth and uniform coat of paint for our cars, trains, aircrafts and bridges.

Siltech offers silicone additives for letterpress, flexographic and offset print production as well as solutions for the varied needs of many applications.

Siltech offers silicone additives for letterpress, flexographic and offset print production as well as solutions for the varied needs of many applications.

SILTECH HAS YOU COVERED

Painting is a major industry in every technologically advanced country. Newspapers, packaging and stationary, marketing and sales materials are the most products produced on a wide variety of printers and presses.

Silicone is essential in the formulation of numerous types of paints and lacquers. From heavy duty industrial coatings to interior and exterior architectural paints, silicone chemistry additives offer protection against moisture and harmful environmental influences, and provide an important element of design.

These types of modified silicones enhance the performance of paint by migrating to its surface, so it can spread evenly over metal and plastic surfaces. The result is a mirror-like, perfectly smooth and uniform coat of paint for our cars, trains, aircrafts and bridges.

Siltech offers silicone additives for letterpress, flexographic and offset print production as well as solutions for the varied needs of many applications.

Siltech offers silicone additives for letterpress, flexographic and offset print production as well as solutions for the varied needs of many applications.

SILTECH HAS YOU COVERED

Painting is a major industry in every technologically advanced country. Newspapers, packaging and stationary, marketing and sales materials are the most products produced on a wide variety of printers and presses.

Silicone is essential in the formulation of numerous types of paints and lacquers. From heavy duty industrial coatings to interior and exterior architectural paints, silicone chemistry additives offer protection against moisture and harmful environmental influences, and provide an important element of design.

These types of modified silicones enhance the performance of paint by migrating to its surface, so it can spread evenly over metal and plastic surfaces. The result is a mirror-like, perfectly smooth and uniform coat of paint for our cars, trains, aircrafts and bridges.

Siltech offers silicone additives for letterpress, flexographic and offset print production as well as solutions for the varied needs of many applications.

Siltech offers silicone additives for letterpress, flexographic and offset print production as well as solutions for the varied needs of many applications.

SILTECH HAS YOU COVERED

Painting is a major industry in every technologically advanced country. Newspapers, packaging and stationary, marketing and sales materials are the most products produced on a wide variety of printers and presses.

Silicone is essential in the formulation of numerous types of paints and lacquers. From heavy duty industrial coatings to interior and exterior architectural paints, silicone chemistry additives offer protection against moisture and harmful environmental influences, and provide an important element of design.

These types of modified silicones enhance the performance of paint by migrating to its surface, so it can spread evenly over metal and plastic surfaces. The result is a mirror-like, perfectly smooth and uniform coat of paint for our cars, trains, aircrafts and bridges.

Siltech offers silicone additives for letterpress, flexographic and offset print production as well as solutions for the varied needs of many applications.

Siltech offers silicone additives for letterpress, flexographic and offset print production as well as solutions for the varied needs of many applications.

SILTECH HAS YOU COVERED

Painting is a major industry in every technologically advanced country. Newspapers, packaging and stationary, marketing and sales materials are the most products produced on a wide variety of printers and presses.

Silicone is essential in the formulation of numerous types of paints and lacquers. From heavy duty industrial coatings to interior and exterior architectural paints, silicone chemistry additives offer protection against moisture and harmful environmental influences, and provide an important element of design.

These types of modified silicones enhance the performance of paint by migrating to its surface, so it can spread evenly over metal and plastic surfaces. The result is a mirror-like, perfectly smooth and uniform coat of paint for our cars, trains, aircrafts and bridges.

Siltech offers silicone additives for letterpress, flexographic and offset print production as well as solutions for the varied needs of many applications.

Siltech offers silicone additives for letterpress, flexographic and offset print production as well as solutions for the varied needs of many applications.

SILTECH HAS YOU COVERED

Painting is a major industry in every technologically advanced country. Newspapers, packaging and stationary, marketing and sales materials are the most products produced on a wide variety of printers and presses.

Silicone is essential in the formulation of numerous types of paints and lacquers. From heavy duty industrial coatings to interior and exterior architectural paints, silicone chemistry additives offer protection against moisture and harmful environmental influences, and provide an important element of design.

These types of modified silicones enhance the performance of paint by migrating to its surface, so it can spread evenly over metal and plastic surfaces. The result is a mirror-like, perfectly smooth and uniform coat of paint for our cars, trains, aircrafts and bridges.

Siltech offers silicone additives for letterpress, flexographic and offset print production as well as solutions for the varied needs of many applications.

Siltech offers silicone additives for letterpress, flexographic and offset print production as well as solutions for the varied needs of many applications.
versatile digital imaging

Non-impact printing technology is the process of forming images without direct physical contact between the printing mechanism and the paper. Colour laser printers and production digital printers compete with the conventional printing process, and non-impact printing is a cost-effective alternative for smaller, smaller production runs, that are typically more expensive when placed on a full colour offset printing press.

A variety of pre-packaged paper stocks, coated and non-coated finishes, and weights can be used on recall digital printers, making this technology extremely popular for paper producers, commercial printers and consumers who have a colour laser printer in their office or graphic design studio.

Silicone additives are used to transfer toner to a laser unit and then to the paper stock. When heat is applied, the toner penetrates the top layer of the paper stock, and is permanently affixed once it cools off. The silicone additive makes sure toner is spread out evenly for a uniform, high quality image distribution. As digital printing technology continues to improve, paper manufacturing companies will benefit from the increased performance offered by silicones, as paper consumption for this sector increases every year.

Coating release applications
Silicone-coated release liners are replaceable commercial and consumer tools with endless everyday applications. Silicone released solutions are applied to either one or both sides of a paper or film substrate to achieve a perfect, evenly distributed coating to help protect and prepare for pressure sensitive adhesive applications. These products can be modified with miscellaneous features depending on the application required, including offering easy release, repositioned barriers, or permanent to help to improve surface or reduce slippery surfaces.

Silicone release coatings can be found in every area of your home and business, including industrial adhesives for HVAC, metal work and piping, insulation, cooling and repair, baking papers, industrial sticks, retail labels, bar codes, diagnostic tools and medical instruments, healthcare, adhesive bandages, shipping and transportation, signage, apparel, and wrapping papers, and paper tapes.

The everyday use for these coatings is virtually endless, and without effective silicone additives for these products, many of these applications would be ineffective and would not exist today. Silicone solutions provide high performance to your release coatings, while maintaining optimal release features in extreme naturally or industrially generated conditions.

Specialized tissue formulations
Silicone additives are used in these products as an effective surface treatment to enhance performance in tissue manufacturing, including both bath and toilet tissues, paper towels, napkins, and dry wipes as well as other disposable personal hygiene products. Silicone compounds help reduce the natural frictions of a paper product, maintain wet strength, and reduce dust and dirt properties while in use. The addition of specialized polyether additives can enhance moisture absorbency as well.

Siltech has developed a variety of proven silicone formulations for these tissue applications and many others.

Paper and board coating
A wide variety of products is used in the paper and paperboard coating industry. Siltech can help create customized coating formulations for a multitude of coated paper applications for offset and flexographic commercial printing. Millions of tons of printed materials are produced every year for packaging and marketing usage. Additives for high quality and specialized printed graphics are used in a variety of paper applications, including various visual marketing vehicles, from cereal boxes to specialty produced high end cosmetic cartons, bags and in-store point of sale materials.

With our proven formulations, Siltech can offer customized solutions that meet the high quality, strength and printing performance requirements for the paperboard and paper coating industries.

POWERFUL FORMULATIONS FROM FIBRE TO CONSUMER

Pulp and paper processing additives
During the manufacture of paper products, silicones are used to improve various processes, from de-inking to colorant release quality. They are also used to improve the attributes of many final products by increasing their softness, absorbency or repelency.

Silicone additives provide smooth and reliable production in all processes of pulp and paper manufacturing, thanks to effective, especially tailored silicone solutions.

Controlling over-foaming is a constant challenge in many areas of paper production. Effective silicone antifoam formulations improve and reduce typical foam-intensive production processes, including pulp-washing and bath bleaching. The right formulations can dramatically reduce production times, maintenance costs, bleaching chemical usage and waste consumption costs, and improve paper quality while maintaining environmental protection. Because each mill operates under its own unique conditions, Siltech will work collaboratively to formulate specific products for specific applications. Silicone chemicals will work with you to ensure smooth, reliable processes in pulp production, thanks to antifoam agents specially tailored to your specific needs.
The rise of 3D printing in fashion

In recent years, the use of 3D printing in the fashion industry has been increasing for prototyping and even production. 3D printing allows the designer to quickly alter any component of the design with ease, with no extra cost to fit any requirement. Consumers can even try again. If designers fail with 3D printing, they can easily try it another way. 3D printing is exploding in the fashion industry.