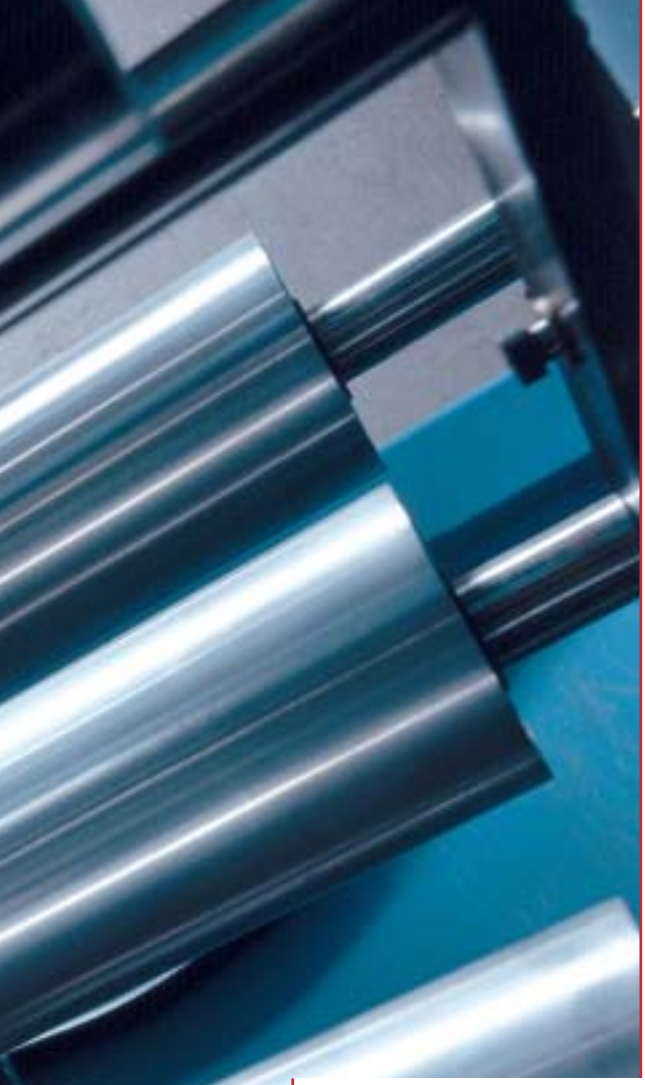
The Leader in Precision Calendered Silicone

ARLON

SILICONE TECHNOLOGIES DIVISION



Arlon Silicone Technologies Division has been a leader in silicone technologies since 1954, specializing in precision-calendered composites and extruded tapes. From thermal insulation pads and molded heat shields for aircraft, aerospace, and automotive applications, to high temperature substrates for flexible heaters, ducting, and motor coil insulation, Arlon offers the highest performance silicone solutions.

By specializing exclusively in silicone, we have developed unmatched technical proficiency. Our development team can custom design materials and processes from the ground up for the most demanding and complex requirements.

Why Silicone

Silicone offers unique performance advantages not found in other materials. Silicone is the ideal solution for applications requiring:

- wide service temperature range
- electrical insulation or conduction
- UV, ozone, and chemical resistance
- flame retardance
- protection from moisture
- thermal-mechanical stress performance
- temperature cycling durability
- lack of odor, taste, and toxicity
- suitability for food contact

Products

Arlon develops and manufactures specialty silicone compounds, components, and coated fabrics for a variety of applications and industries. As the industry leader, we have extensive experience and expertise in custom compounding, calendering, and application engineering. We deliver high quality products that consistently meet or exceed customer requirements.

In addition to developing custom solutions to meet your physical or chemical property requirements, we offer standard silicone solutions in the following product areas.

Flexible Heater Substrates

The use of flexible silicone composite materials is the standard for high temperature heaters. Arlon manufactures a full line of reversion-resistant silicones for use in the heater industry, including those for etched foil and wire wound heater applications. We offer products that meet UL94-HB and UL94-V0 flame retardance (see File #E54153). We also offer resistive foil composites, such as Alloy 600/silicone, eliminating the bonding step.

Traction Motor Insulation

Arlon is the world's leading supplier of silicone traction motor insulation systems. Our products offer protection against vibration and abrasion while providing excellent dielectric insulation — even in the most challenging environments.

Electronic Film Adhesives

Printed circuit boards used in aerospace and automotive electronic assemblies operate in demanding environments with exposure to extreme temperatures and vibration. Our Thermabond® electronic adhesives are a unique class of elastomeric materials that provide thermal-mechanical stress decoupling and a reliable heat transfer path. With Thermabond®, adjoining components move freely during operation — preventing stress build-up created by expansion and contraction. Thermabond® is available in a range of thermal conductivities, including an electrically conductive line for ground plane continuity, electrostatic dissipation, and EMI/RF shielding.

Specialty Applications

Arlon offers a variety of custom-designed products that deliver flexibility and temperature resistance. These products include:

- belting materials for heat and light processing of plastics, electronic components, composites, and food products.
- press pad materials used in heat/press lamination of almost any composite construction. Our products provide maximum reversion resistance and cycle life.
- ducting materials specifically designed for the manufacture of flexible and high temperature silicone hoses and ducts for environmentally sensitive applications such as high temperature chemical vapor transport.

Fusible Tape

Arlon self-fusing silicone tapes are made of a special fully cured, unsupported silicone rubber compound that fuses to itself in minutes to form a permanent bond. These tapes are ideal for electrical insulation, moisture protection, and high or low temperature applications. And, since there is no adhesive, no residue remains when the tape is removed. Our tapes are available in two standard configurations — triangular and rectangular — and in various colors, thicknesses, and widths. We offer UL recognized self-fusing tapes (see File #E216531), as well as a flame retardant version that meets FAR 25.853. Arlon tapes are the ideal solution for many military, aerospace, industrial motor, and marine applications including utility cable terminations and splices, bus bar insulation, motor coil terminal connections, and fuel line and hose repair.

Quality Products And Services

Arlon pursues the most rigorous quality standards and controls. The Quality Management System used by Arlon is certified to ISO9002, BS EN 9002, and ANSI/ASQC Q9002 quality assurance standards. We have incorporated process control methods throughout our manufacturing operations to assure the calendering accuracy and precision. Laser measurement capability ensures precise control of calendered thickness across the roll width for the entire production run.

Our on-site laboratories are equipped to perform full silicone rubber product evaluations (including tensile elongation, lap shear strength, dielectric strength, thermal conductivity, and chemical resistance). Our continual focus on quality has resulted in a world-class customer product acceptance rate.

Arlon engineers advance new products from concept through manufacturing and continually improve upon existing processes and equipment. They frequently work hand-in-hand with our customers. At Arlon, focus on customer requirements is paramount — from our customer support specialists to our sales and applications engineers.

Delivering Tomorrow's Silicone Solutions Today

Arlon's development team is continually exploring new technologies that will benefit our customers. Whether we are researching higher performance silicone compounds or evaluating new manufacturing technologies for creating novel constructions and applications, our focus is to provide innovative and reliable solutions.

Our Research and Development facilities are equipped and ready to perform full product testing and evaluations.

Flexible Calendering Operations

Arlon operates several calenders in the Bear, Delaware, plant for maximum flexibility. We can produce continuous runs from 25 yards to more than 1,000 yards cost-effectively. This allows our customers to meet challenging design, fabrication, bonding, and molding requirements. Arlon calendering operations offer superior web thickness control from .005" to .125" on standard applications, with as little as .002" of silicone rubber add-on. We are able to convert product to provide rolls as narrow as 1/2" in width.

Our calenders apply the precise thickness in order to meet even the most exact tolerances. Also, our dispersion coating towers and calenders have superior temperature and environmental parameter controls. Advanced tension controllers for unwind and rewind ensure proper web control, eliminating wrinkling and other common roll problems.

We supply cured and uncured, reinforced and un-reinforced roll goods, sheets, and tapes. We also custom die cut our materials for applications ranging from circuit board components to flexible heater laminates.

The Right Solution

Arlon retains its industry leadership position by focusing solely on providing the highest quality silicone compounds, substrates, and laminates. We custom compound silicone gums to meet unique requirements including handling and performance characteristics.

We choose from a wide variety of rubbers, catalysts, mineral fillers, reinforcing components, and polymer additives for each application. We have an extensive array of compounds including fluorosilicones, ZZ-R-765 compliance, Shore A durometers from 30 to 80, as well as formulations suitable for food contact.

Supporting substrate fabrics are selected for the specific application requirements for tensile strength, flexibility, thickness, weave, and chemical and heat resistance. Arlon currently offers products on more than a dozen fiberglass fabrics, polyester, Nomex®, Kevlar®, and even woven graphite. Each of these is offered with a broad range of cure profiles. Precise silicone color matching is also available to enhance product appearance and function.

Arlon also provides the broadest variety of standard construction options available in the industry today. We can create unique constructions that best optimize performance and cost for your application. We have developed a unique capability of bonding technology for our calendered silicone products in order to meet demanding performance standards. We offer silicone bonded to stainless steel and Alloy 600 foils. Our primerless technology products eliminate the need to prime before bonding to a substrate.

Challenge us! Our technical team will work with you to customize the compound, substrate, and construction to meet virtually any design and performance criteria from reversion resistance to thermal or electrical conductivity.

PRODUCT CONSTRUCTION

	0	1	2	3	4	5	6	7	8	9
SIDE 1	Uncured	Uncured	Cured	Cured	Semicured	Semicured	Cured	Semicured	Special	Uncured on top of Cured
SIDE 2	None	Uncured	None	Cured	None	Semicured	Uncured	Uncured	Special	None

Challenge Us!

We want to

work with

you to create

tomorrow's

solutions today!

ARLON

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Arlon STD is headquartered in Bear, Delaware.
Arlon STD is a division of Bairnco, a diversified multinational corporation.

CERTIFIED
ISO 9002

Accredited by the Council for Accreditation (RvA)

National Accreditation Program