



PRODUCT AND SERVICE LINE CARD

Essex Brownell distributes magnet wire, wire & cable, electrical insulation, motors, motor parts, shop equipment and test equipment to the electrical OEM and motor repair markets.



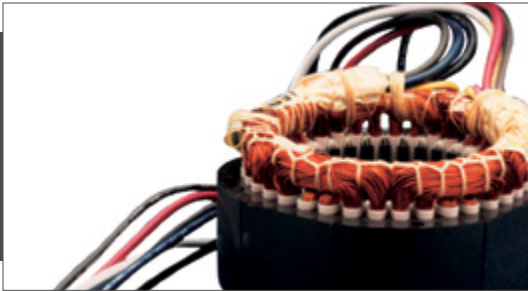
MAGNET WIRE

Round, square and rectangular copper and aluminum magnet wire is available with UltraShield Plus, Formvar®, Nylon, polyurethane, epoxy, polyester, ML®, polyimide, Dacron®, glass, paper, Nomex® or Kapton® insulation.

Temperature rating: 105° to 250° C

UL recognized, conform to NEMA standards and are available to military specifications. Stocked in spools, reels, drums, taper packs or pails.

MAJOR MANUFACTURERS: Superior Essex | PPE | Austral | Elektrisola



WIRE & CABLE

UL and CSA recognized styles including PVC, cross-linked, EPDM, CPE, silicone rubber, Hypalon and Teflon. Other offerings include lead wire automotive wire, battery cable, welding cable, portable cord and bulk cord.

VALUE ADDED SERVICES: Cutting, Terminating, Dying, Twisting and Printing

MAJOR MANUFACTURERS: LS Cable | Belden | Champlain | Radix | Therm-O-Link | Southwire (including Coleman Cable)



MICA PRODUCTS

Mica papers, tapes, wraps, tubes, fabricated parts and capacitor papers for VPI, high voltage coil and bar applications, high/low voltage equipment and traction motors. Available in heater, segment and molding plates with epoxy, silicone and alkyd vinyl binder types. Also available in inorganic products.

MAJOR MANUFACTURERS: Cogebi | Isovolta | Von Roll | Asheville-Schoonmaker Mica



ADHESIVES & SEALANTS

Acrylic, anaerobic threadlockers, cyanoacrylate, epoxy, polyester, polyurethane and silicone compounds. Available in liquid, paste, aerosol and hot melt formulations.

MAJOR MANUFACTURERS: Elantas PDG (PD George, Epoxylite, Ranvar, Ripley Resin, Isonel, Guardian, Viking) 3M | Dolph | Dow Corning | Permabond | Adhesive Systems | Star Technology



PRESSURE SENSITIVE TAPE

Electrical and industrial tape products with silicone, acrylic and rubber adhesives and backings including polyester composites, PTFE, polyimide, polypropylene, Nomex, Teflon, Kapton, paper, vinyl, foil, glass cloth, cotton or filament reinforced materials.

VALUE ADDED SERVICES: Temperature controlled storage, slitting/converting of custom sizes.

MAJOR MANUFACTURERS: 3M | IPG | Ideal | Nitto Denko | Saint Gobain



FLEXIBLE INSULATION

Essex Active is a leading supplier of complete insulation systems in the manufacture and repair of oil-filled and dry-type electronic transformers. Essex Active provides all of the major and minor insulation components including the core, layer and barrier insulation as well as the internal insulation withing the windings. Essex Active offers premium products from leading manufacturers. Products include Nomex, laminates (NMN, DMD, TFT and more), Tufquin, Cequin, TVAR, Skyrol PET Film, Kraft, Pressboard, Mylar and Kapton.

MAJOR MANUFACTURERS: DuPont | Flexcon | 3M | SKC | Isovolta | Cottrell Paper | Von Roll | Fibertek



LACING & BANDING

Tapes and cords are available in various materials including polyester, Dacron, fiberglass, ceramic and cotton. Temperature ranges from 55° C to 200° C. Available with wax, synthetic rubber, silicone resin, Nylon, Teflon or B-Stage epoxy coatings. Surge ropes also available.

MAJOR MANUFACTURERS: Atkins & Pearce | Mutual Industries | Fibertek | American & Efird | PEI | Breyden | Von Roll
Mutual Industries | Western Filament | Hesgon | Isovolta | Caroline Narrow Fabric



RIGID INSULATION

Fiberglass is reinforced with polyester, epoxy or phenolic resins to form various shapes. Nomex® pressboards, Micarta®, wood and mica insulation are also available. Products offer excellent flame, arc and track resistance, in addition to high temperature ratings, dielectric and mechanical strength. Available in sheets, rods, tubes, wedges, topsticks, insulators, molded shapes and fabricated parts. UL recognized and conform to NEMA standards.

MAJOR MANUFACTURERS: Accurate Plastics | Wm F McGraw | Röchling | Polyply Composites | Liberty Polyglass
Haysite | Marbal | EHV Weidman | ATI | ABB Micafil Vetrelam | Synthane-Taylor



DOW CORNING SILICONE PRODUCTS

ELECTRONICS

Adhesives and sealants, conformal coatings, dielectric gels, encapsulants, thermally conductive adhesives, thermal pads and power materials for long term reliable protection of circuits and components. Primers also available.

ELECTRICAL/INDUSTRIAL/XIAMETER

Xiameter transformer fluid, varnishes, adhesives, sealants, lubricants, greases, anti-friction coatings, heat shrink compounds, mold making materials, binder resins, abrasives and precision cleaning agents.



VARNISH & RESINS/PAINT & CHEMICALS

Solvent based and solventless polyester and epoxy varnishes and resins. Waterborne polyesters and water emulsion epoxies. Also available: Co-polymers, polybutadiene, alkyds, polyurethanes, air-dry varnishes, hermetic varnishes, adhesives, thinners and paints. These materials are used in dip and bake, VPI, trickle, roll-through, potting and encapsulating, casting and conformal coating processes.

VALUE ADDED SERVICES: Cold room storage, tank samples and small kit availability.

MAJOR MANUFACTURERS: Elantas PDG (PD George, Epoxylite, Ranvar, Ripley Resin, Isonel, Guardian, Viking)
3M | Star Technology | Vanguard | Dow Corning | CRC | Von Roll/Dolph | Krylon Axalta
Glyptal | Sprayon



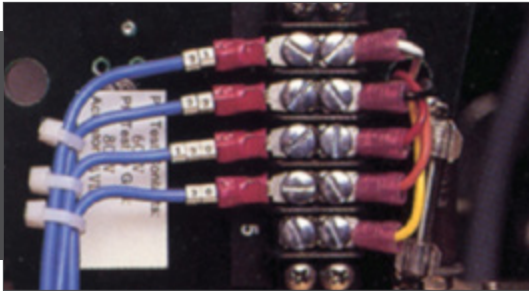
TUBING & SLEEVING/MARKING SYSTEMS

SLEEVE PRODUCTS - PVC, vinyl, braided fiberglass, acrylic, silicone rubber, VPI and Expando. Heat shrink tubing includes Polyolefin, PVC, Kynar and spiral wound polyester film.

Computer generated labels, write-on labels, markers for wire and components and general identification requirements.

MAJOR MANUFACTURERS: 3M | LS Tubing | National Band & Tag | Federal Mogul | Dunbar | Hilec/Delfingen
Brady | 3M Electrical Products | Insul-Tab | Zeus Industrial Products | Grayline
Atkins & Pierce (Suflex & Ben-Har)

Note: UL, CSA, NEMA and Military Specifications apply to the appropriate product selection.



TERMINALS & CONNECTORS

Solderless terminals, terminal blocks, cable ties, wiring accessories, heat shrinkable products, solder sleeves and mounting bases.

MAJOR MANUFACTURERS: Molex | 3M Electrical Products



SHOP EQUIPMENT/TEST INSTRUMENTS

All the necessary equipment required for motor rewinding and repair. Burn out ovens, bake ovens, dip tanks, winding machines, strippers/cutters, balancing machines, test meters, dynamometers and surge testers.

MAJOR MANUFACTURERS: IRD | GRI Predictive Technology | SKF | Steelman Industries | Eraser Company
Pollution Control Products | AEMC Instruments | JRI Cleaning Systems | Armature Coil
Equipment | Ideal Industries | Nexjen Systems | Martindale Electric | Laycock Systems
HEATTEK | AW Dynamometer | H2OWeld | Col-Met



MOTORS & RENEWAL PARTS

Replacement motors from sub-fractional to integral ratings for the following applications: HVAC, farm, pump, industrial, general purpose. Renewal replacement parts for pumps and motors: bearings, capacitors, switches, terminal boards, shaft grounding rings, RTD's and thermocouples, pump seals, packing.

Buy your motors and parts online at essexbrownell.com.

MAJOR MANUFACTURERS: US Seal | Hemco | Regal Beloit (Marathon, Century, Fasco) | General Electric | Nidec
C&U Bearings | Nachi America | Electro Static Technology | Measurement Specialties
Vanguard | Shaver-Kudell



VARIABLE FREQUENCY DRIVES & ELECTRIC PRODUCTS

LSIS line of variable frequency drives, contactors, overload relays, circuit breakers and manual motor starters

MAJOR MANUFACTURERS: LS Industrial Systems



SOLDER

Bar solder, wire solder, solder paste, preforms, brazing alloys, fluxes and chemicals.

MAJOR MANUFACTURERS: AIM Products | Canfield | JW Harris



Essex Active is a service offered by Essex Brownell to the electrical OEM and motor repair markets in North America. We convert and fabricate both rigid and flexible non-metallic electronic and electrical insulating materials.



CONVERTING & FABRICATING SERVICES

TAPE SLITTING

- Precision slitting of pressure sensitive adhesive backed tapes to custom widths from .125" to 48"
- Slitting tolerances from + or - .015" to + or - .032" (material specific)
- Tape slit materials include Plastics, Kapton, Glass cloth, copper foil, PTFE, Nomex and many others. All wound on 3" cores

FLEXIBLE INSULATION SLITTING

- Standard rolls from .125" to 72", and standard material thicknesses from .0005" to .125"
- Slitting tolerance capabilities to + or - .005". Standard tolerance of + or - .015"
- Rewinding capabilities to custom length

SHEETING

- Common material sizes of 24 x 36 and 36 x 36 inches with custom cut sizes to 60 inches wide and lengths to 120"
- Material thicknesses from .0005" to .125"
- Programmable sheet layouts to virtually any dimension
- Custom sheet marking, striping and packaging

DIE-CUTTING

- Cutting, pre-folding, creasing, perforating and scoring capabilities
- Hard tool dies for high volume applications
- Complete range of custom steel rule die cutting and stamping
- Cutting tolerances down to + or - .005" with + or - .125" standard
- Materials 1 mil - 30 mil thick
- Fast, affordable prototyping and new product testing

SLOT INSULATION

- Essex Active fabricates slot liners, slot armor, cuffed edges, creased and formed and turn insulation

LAMINATING

- Pressure sensitive adhesive backed materials
- Composite laminates
- Zone and strip laminating
- Custom material laminating

FORMING

- Creasing and/or cuffing of slit rolls and rewound on 3" cores
- Formed parts chopped to length
- Heat forming of stator wedges and slot cell insulation
- Custom folding

KITTING/CUSTOMIZED PACKAGING

- Building of components to kit level
- Packaged to customer requirements or standard sturdy cardboard box that is packaged with heavy duty shipping tape
- Package standard is 12" x 12" to length required
- Custom carton sizes available after the standard 12" x 12" length

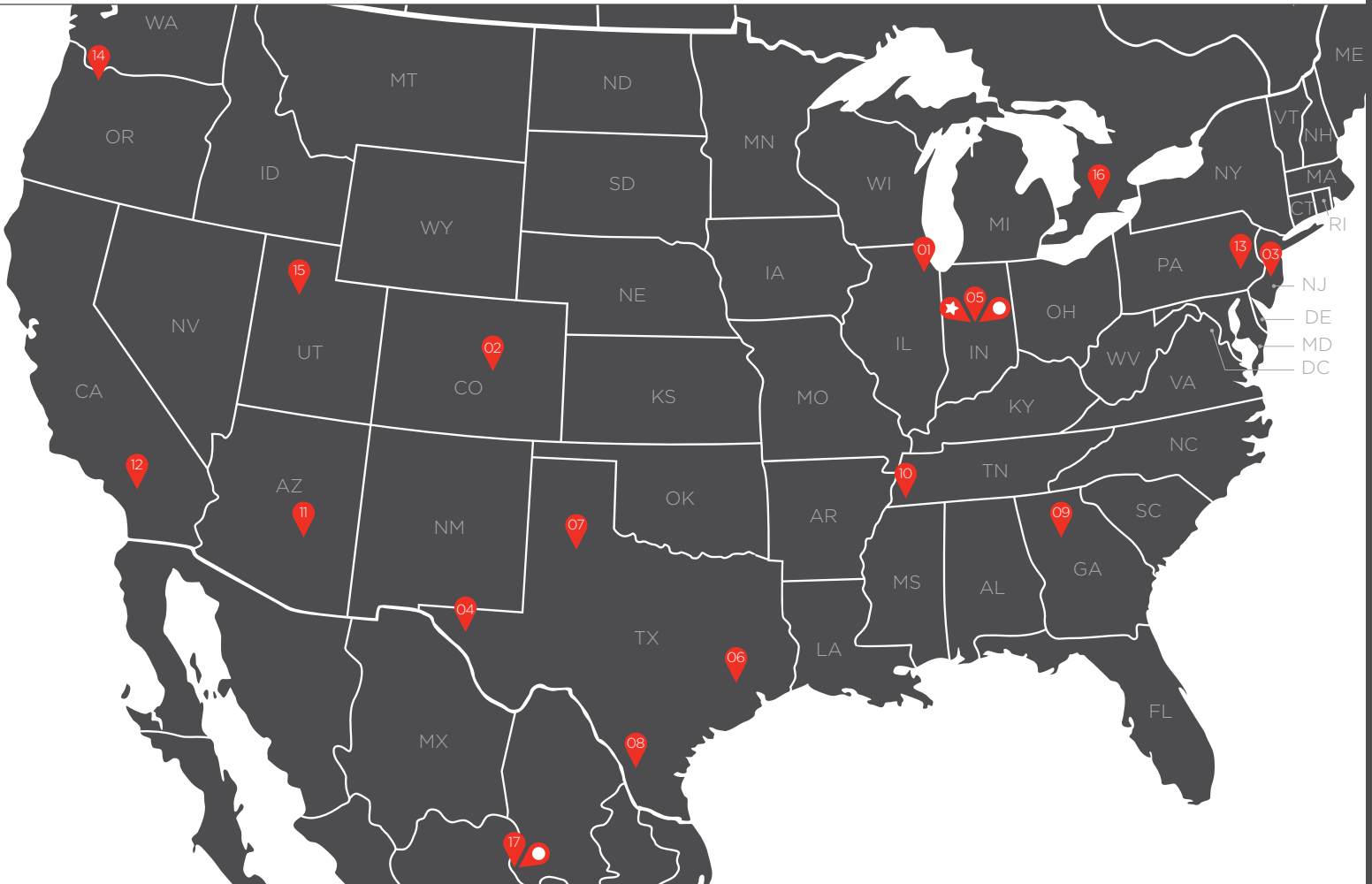
WIRE REWINDING & STRIPPING

- Custom cut lead wire in sizes up to 4/0
- Spool rewinding to custom lengths and standard lengths of 25, 50, 100, 125, 250, and 500 feet. Lengths of 25, 50, 100, 125, and 250 for 22AWG to 6AWG wire. Plus 25, 50, and 100 foot lengths for 4AWG to 4/0
- Lead wire stripping capabilities to any overall length with adjustable strip lengths on cables ranging from 22AWG to 8AWG.
- Partial, mid and step stripping is possible

PRINTING

- Ink stamped grain direction, part number, roll marking
- Customer specific diagram printing on die cut parts, designs and slit edge making

At Essex Brownell, we're ready to serve you with distribution and fabrication facilities strategically located throughout North America.



 Headquarters  Essex Active Fabrication  Branch Location

- | | | |
|--------------------------|-------------------------|------------------------------|
| 01 Chicago, IL | 07 Lubbock, TX | 13 Philadelphia, PA |
| 02 Denver, CO | 08 McAllen, TX | 14 Portland, OR |
| 03 Edison, NJ | 09 McDonough, GA | 15 Salt Lake City, UT |
| 04 El Paso, TX | 10 Memphis, TN | 16 Simcoe, ON |
| 05 Fort Wayne, IN | 11 Tempe, AZ | 17 Torreon, MX |
| 06 Houston, TX | 12 Ontario, CA | |



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