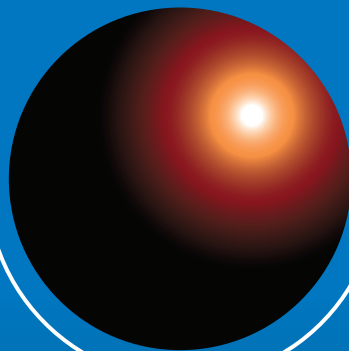


# MIDSUN GROUP



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# INTRODUCTION

Organized in 1992, Midsun has experienced steady growth each year to date. Our goal every year has been simple; to become the very best product and services resource for the power utility, telecommunications and manufacturing industries. Within the relatively narrow niche that is our business focus, we strive to excel in terms of product, services, price, performance and delivery.

We provide utilities worldwide with services and products which increase reliability and save utility companies millions of repair dollars. Midsun Group Inc. not only manufactures a line of no outage products known as E/Products, but also provides turnkey installations with a no outage warranty, hands on demonstrations and training, and formal technical lectures.

If we do not have what you want we can get it for you. If what you want does not exist we will find a way to create it. Midsun can design custom products to meet your specific needs. We own the patents on many of the unique products that we distribute and we enjoy the challenge of finding unique and cost effective solutions for our customers.





\*Yellow coloring indicates areas that Midsun Group has worked in or provided products to.

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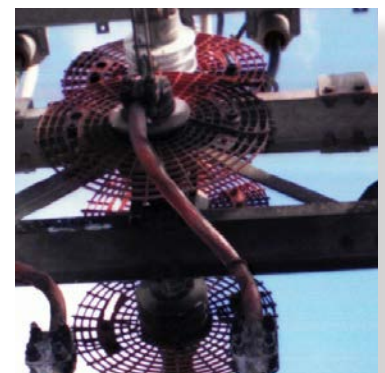
**CONTACTS..... 37**







Common animals known to cause outages:



# E/PRODUCTS FOR ANIMAL MITIGATION

One of the most common issues that many utility companies come across is an inadvertent contact outage. Animals cause hundreds of thousands of dollars in damage by coming in contact with energized equipment. According to the US Department of Energy, the US loses approximately \$80 billion\* due to power outages annually. The Edison Electric Institute estimates that 11%\*\* of those outages are due to wildlife contact.

Midsun's E/Products are carefully engineered to prevent weather and animal related outages throughout your substations and distribution lines. Midsun can provide turnkey operations for our E/Products. Installing our products can save your company hundreds of thousands of dollars in repairs.



\*<http://economyincrisis.org/content/power-outages-highlight-americas-aging-infrastructure>

\*\*[http://www.dieselserviceandsupply.com/Causes\\_of\\_Power\\_Failures.aspx](http://www.dieselserviceandsupply.com/Causes_of_Power_Failures.aspx)

# E/FUSING TAPE

Self-fusing silicone tape which forms a void-free electrical insulation protection system when applied to any connector, bus or cable.



E/Fusing Tape is a non-adhesive, custom formulated self-fusing silicone rubber tape that offers a minimum 15kV phase-to-ground insulation with a 2/3 overlap and 10% stretch. A second wrap of the tape will achieve a 30kV phase-to-ground insulation rating.

E/FTP's self bonding properties make application a snap for flexible cable, expansion joints and odd shaped connectors, while offering electrical protection under the most extreme types of conditions. The custom formulation helps resist heat (FR rated), moisture, corrosives and weathering while maintaining the electrical properties that are key to a long term avoidance of animal caused outages.

E/FTP can be easily removed compared to the labor intensive removal of heat shrink tapes. Its adhesive self-fusing properties ensure that it will not gum up or leave a messy residue when the tape is removed for periodic testing, as with vinyl tapes.

E/FTP is offered in various widths to make application on any size equipment easy.



Part Number:	Product Description:	Metric Lengths
E/FTP - 100G	E/Tape 1" x 36', 30 mil - Gray	2.5 cm x 10.9 m
E/FTP - 250G	E/Tape 2.5" x 36', 30 mil - Gray	6.4 cm x 10.9 m
E/FTP - 400G	E/Tape 4" x 36', 30 mil - Gray	10.2 cm x 10.9 m
E/FTP - 100R	E/Tape 1" x 36', 30 mil - Red	2.5 cm x 10.9 m
E/FTP - 250R	E/Tape 2.5" x 36', 30 mil - Red	6.4 cm x 10.9 m
E/FTP - 400R	E/Tape 4" x 36', 30 mil - Red	10.2 cm x 10.9 m

\*Stretch beyond 10% may decrease dielectric strength.



## Checklist for proper Fusing Tape™ application:

- 15kV phase-to-ground insulation when applied using a 10% stretch with a 2/3 overlap
- 30kV insulation can be achieved by a subsequent application
- Keep tape clean – Dust, dirt and moisture on hands or tape will prevent tape from adhering to itself
- Prevent any air pockets from developing by firmly pressing down on tape
- Stretching the tape over 10% will affect its dielectric properties
- Fusing tape can possibly hold water – Allow a place for water to egress out
- Must overlap 100% when starting and terminating so as to not have any “flagging”



# E/INSULATION

Silicone rubber split line hose for distribution lines and substation cables and buses.



E/Insulation is a silicone hose used to protect a variety of distribution and substation equipment at a minimum of 20 kV phase-to-ground. The E/Insulation is manufactured with a split seam to allow for an easy application without the need of breaking electrical connections. The hose is simply pulled and split apart allowing it to be quickly slipped over the cable or bus being protected. There is no heat shrinking required for application and no tools other than a cutting tool for proper length are needed.



The custom formulated silicone material remains pliable even in the most extreme cold temperatures but it is robust enough to allow for rough handling, the abuse of line trucks and hundreds of on and off applications. It is also flame, arc, UV, and ozone resistant so it will not crack over time.

E/Insulation is manufactured in round, angle and flat stock.

## PRODUCT DESCRIPTION

Conductor Size (AWG or kcmil)	Conductor OD (inches)	E/Insulation Part #
6	0.198 (.5 cm)	E/INS - 025
4, 2, 1/0, 2/0	0.25 - 0.447 (.6 cm - 1.1 cm)	E/INS - 050
3/0, 4/0, 266.8 - 336.4	0.502 - 0.741 (1.3 cm - 1.9 cm)	E/INS - 075
397.5, 447, 556.5, 605, 636	0.806 - 1.00 (2.0 cm - 2.5 cm)	E/INS - 100
666.6, 715.5, 795, 900, 954	1.00 - 1.196 (2.5 cm - 3.0 cm)	E/INS - 125
1033.5, 1113, 1192.5, 1272, 1351.5, 1431	1.25 - 1.427 (3.2 cm - 3.6 cm)	E/INS - 150
1590, 1780, 2156, 2167	1.504 - 1.735 (3.8 cm - 4.4 cm)	E/INS - 175
2312, 2515	1.760 - 1.980 (4.5 cm - 5.0 cm)	E/INS - 200

\*E/INS-025 - E/INS-175 – Available in 50 ft. lengths/increments (15.2 m)

\*E/INS-200 - Available in 25 ft. lengths/increments (7.6 m)



Angle Bus	E/Insulation
3.25 in (8.3 cm)	E/INS - ABC - Tail - G - 60 - 3.25
4.0 in (10.2 cm)	E/INS - ABC - Tail - G - 60 - 4.00

\*Angle Bus - Available in 5 ft. lengths/increments (1.5 m)



Flat Bus	E/Insulation
3.25 in (8.3 cm)	E/INS - FLAT - 3.25
4.0 in (10.2 cm)	E/INS - FLAT - 4.00

\*Flat Bus - Available in 5 ft. lengths/increments (1.5 m)



Round Bus	E/Insulation
2.5 in (6.4 cm)	E/INS - 250
3.5 in (8.9 cm)	E/INS - 350
4.5 in (11.4 cm)	E/INS - 450

\*Round Bus - Available in 10 ft. lengths/increments (3.0 m)





# MIDSUN MOLDED PRODUCTS

## E/BUSHING COVER - LARGE

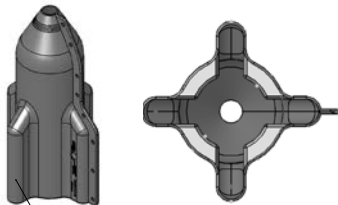
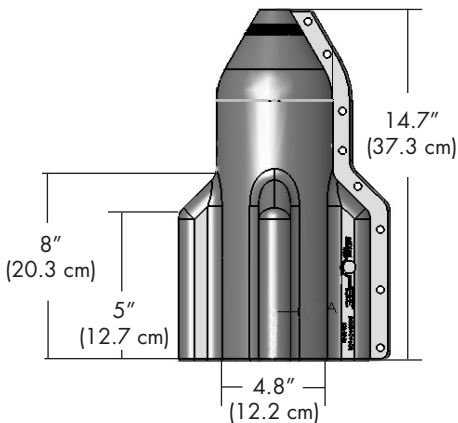


The E/Bushing Cover is a minimum 25 kV\* phase-to-ground and 42.5 kV phase-to-phase molded high temperature vulcanized silicone cover that helps to prevent animal outages. Made from 65 durometer silicone, it will electrically insulate bushing diameters up to 8" (20.3 cm).\*\*

The E/Bushing Cover is flexible and hydrophobic. The flexibility allows for an easy connection between cables and bus to equipment NEMA pads. The E/Bushing Cover bends to allow complete insulation. Unlike other hard plastic covers, cutting holes, making slits and field modifications are virtually eliminated.

The E/Bushing Cover can be used in any environment. The natural hydrophobicity of silicone along with its superior UV and chemical resistant properties, sustain expected life beyond 20 years. Install and forget. In addition, the closure flange is held in position by the same silicone push pins as the cover (See page 14). No more rotted tie wraps that allow other covers to fall off. Our push pins are completely reusable on all of our Midsun E/products.

Part #:  
E/BUSH CV - LGE

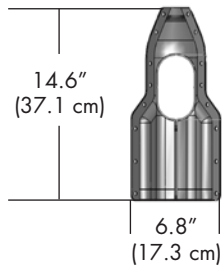


\*Based on ASTM specifications.

\*\*Larger diameters and odd shapes can be accommodated with extensions shown on page 8.

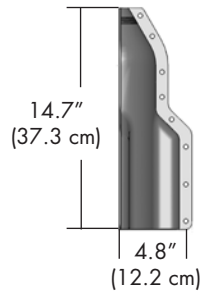
\*\*\*Other colors available: Call for quote.

## E/BUSHING COVER - LARGE - EXTENSIONS



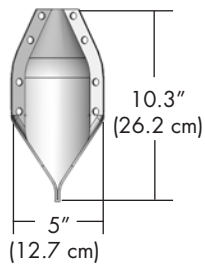
Large Bushing Cover right angle extension

Part #:  
E/BC - LGE - X - WRA



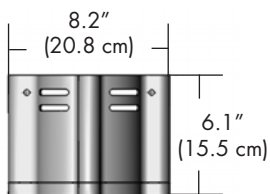
Large Bushing Cover width extension

Part #:  
E/BC - LGE - X - W



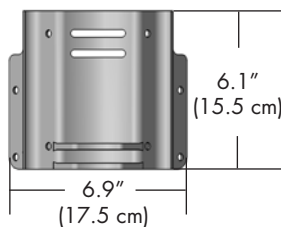
Large Bushing Cover top width extension

Part #:  
E/BC - LG - WT



Large Bushing Cover height extension

Part #:  
E/BC - LG - X - H



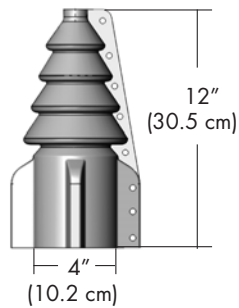
Large Bushing Cover height filler extension

Part #:  
E/BC - LG - X - HF





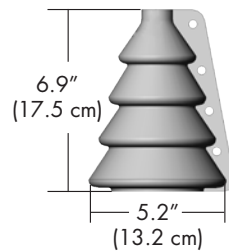
## E/BUSHING COVER - FULL



Silicone bushing cover designed to fit **medium** sized transformer breaker and regulator bushings and arrestors. Will fit bushing diameters up to 5" (12.7 cm)

Part #:  
E/BUSH - FULL

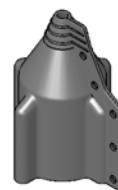
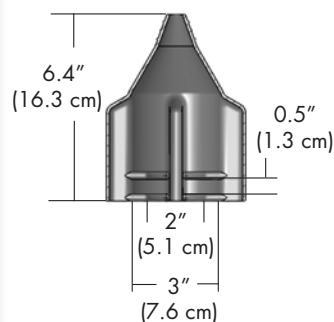
## E/BUSHING COVER - HALF



Silicone bushing cover designed to fit **small** station service transformer bushings, PT's and CT's, and pole top transformer bushings

Part #:  
E/BUSH CV - HALF

## E/BUSHING COVER - SMALL

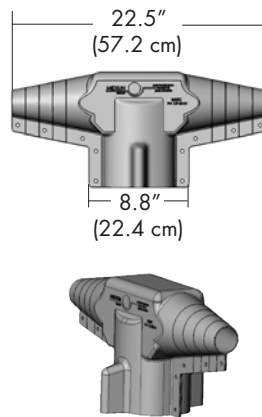


Silicone bushing cover designed to fit **small** station service transformer bushings, PT's and CT's, and pole top transformer bushings

Part #:  
E/BUSH CV - SMALL



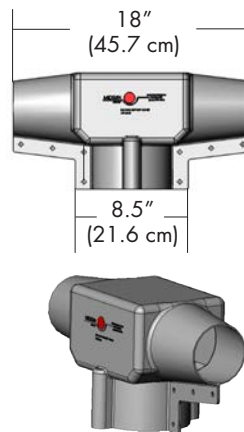
## E/BUS SUPPORT COVER



Silicone cover designed for bus support insulators. Accommodates round, flat or angle bus ranging from 0.5" to 3" (1.3 to 7.6 cm)

Part #:  
E/BSC

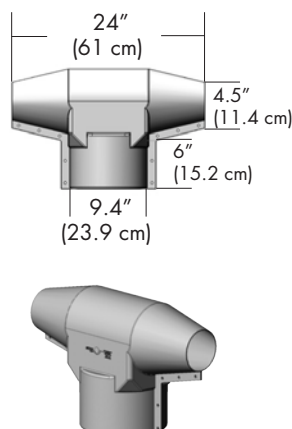
## E/BUS SUPPORT COVER - 3.50



Silicone cover designed for bus support insulators. Accommodates round, flat or angle bus ranging from 3" to 4.5" (7.6 to 11.4 cm)

Part #:  
E/BSC - 350 - G

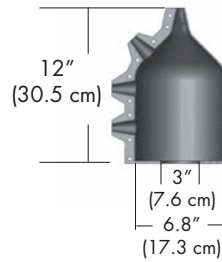
## E/BUS SUPPORT COVER - XL



Silicone cover designed for bus support insulators. Accommodates round, flat or angle bus ranging from 4.5" to 5.5" (11.4 to 14 cm)

Part #:  
E/BSC - XL

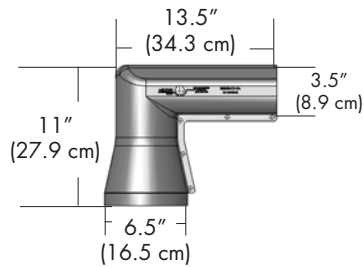
## E/MULTIPORT BUSHING COVER



Silicone cover designed to accommodate bushings with multiple lead connections and larger NEMA pad connections

Part #:  
E/BUSH CV - MULTIPORT

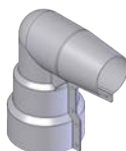
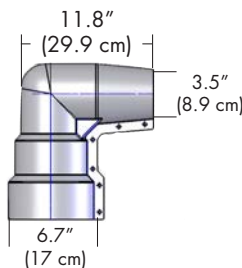
## E/RIGHT ANGLE BUSHING COVER



Silicone cover designed to fit large bushings with double right angle lead connections

Part #:  
E/BUSH CV - RA

## 90° RIGHT ANGLE BUSHING COVER

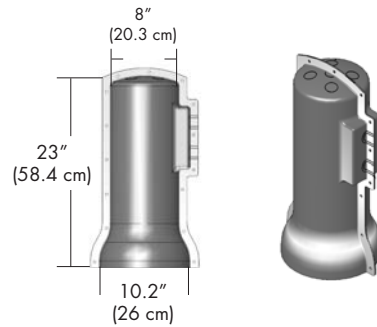


Silicone cover designed to fit larger single or double lead right angle bushing connections

Part #:  
E/BUSH CV - 90RA



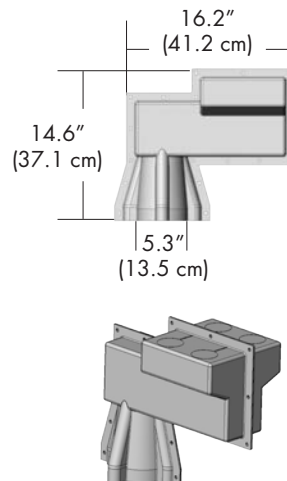
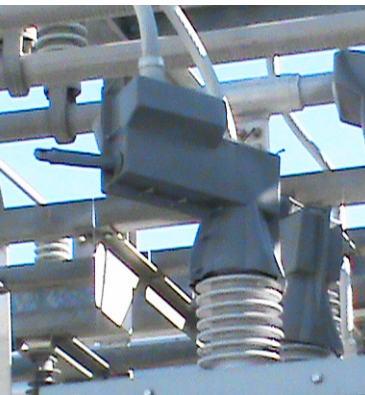
## DOUBLE LEAD COVER



Silicone cover designed to accommodate bushings with multiple lead connections and larger NEMA pad connections

Part #:  
DOUBLE LEAD COVER

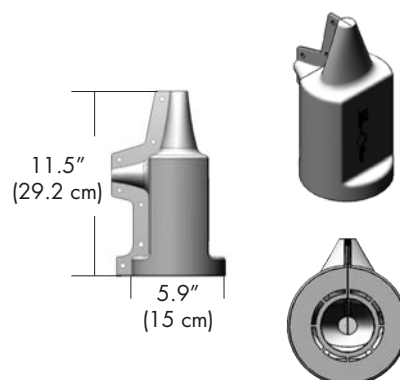
## E/BUSH CV - CBBC



Silicone cover designed to fit large bushings with double right angle lead connections

Part #:  
E/CBBC CV

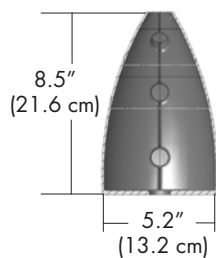
## E/BUSHING COVER - SIDE



Silicone cover designed for recloser bushings. Perforated bottom allows it to fit various sized bushings

Part #:  
E/BUSH CV- SIDE

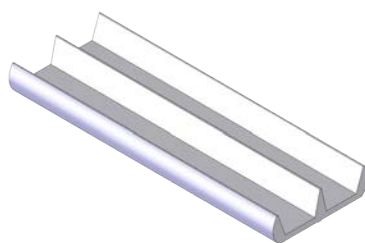
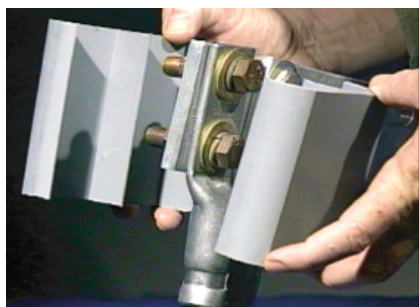
## E/TERMINATION COVER



Silicone cover designed to cover underground termination bushings

Part #:  
E/TERMINATION COVER

## E/NEMA PAD



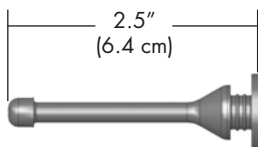
A non-conductive silicone extrusion designed to wrap NEMA pads, providing a waterproof tight seal

Part #:  
E/NEMA PAD



# ACCESSORIES

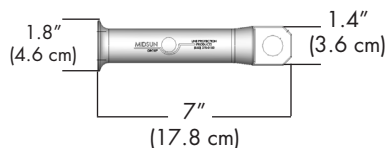
## E/SILICONE PUSH PINS



Silicone pins used to secure Midsun molded covers. Pins are designed for easy glove applications, with a life expectancy to match the molded cover

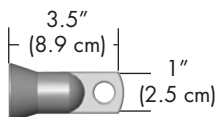
Part #:  
E/PUSH PINS (50 per bag)

## E/GROUND STUD COVERS



Silicone cover that allows for easy on/off application with a hot stick. Designed to protect ground stud connectors allowing for 100% maximum protection

Part #:  
E/GSC - LONG



Part #:  
E/GSC - SHORT

\*Grounding studs for sale upon request.



# E/BARRIER

A de-energized applied polycarbonate barrier used to prevent inadvertent contact by animals and birds on distribution and substation equipment.

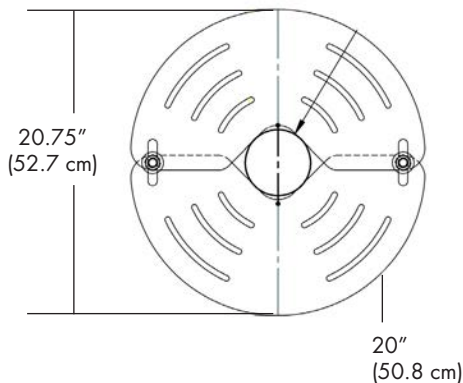


The E/Barrier is a round disc that can be used to block climbing animals from contacting phase-to-ground conductors. The Midsun E/Barriers are constructed from an engineered polycarbonate thermoplastic.

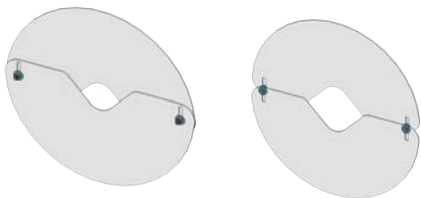
The E/Barrier is a transparent sheet featuring a proprietary surface finish for enhanced Ultra Violet resistance, with the strength unmatched by even the impact modified acrylics.

They offer high voltage puncture resistance, superior strength and weatherability, which makes them suited for applications that are very demanding.

Midsun Group can also make modifications to the design to meet Utility Engineer specific requirements. Contact your Midsun Sales Representatives for more details on designing a barrier to meet your needs.



Standard E/Barriers size = 20" Diameter (50.8 cm)



← Adjusts to fit multiple diameters

*Part #:*

E/BAR SETS - No Slots

E/BAR SETS - Slotted

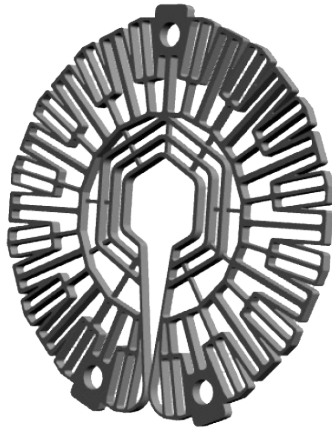
*Product Description*

Standard Polycarbonate E/Barriers w/o slots & holes

Standard Polycarbonate E/Barriers w/ slots & holes

# E/FLEX BARRIER

An energized barrier to prevent inadvertent contact by animals and birds on distribution and substation equipment.



The E/Flex Barrier is a one piece disc-shaped barrier that prevents squirrels, birds and other wildlife from causing phase-to-ground contact.

It is a track resistant, flame retardant material with enhanced UV resistance. It installs easily and safely with a common shot gun stick, without service interruption. All E/Flex Barriers are designed to prevent wind chatter and minimize wind load issues.

The design of the E/Flex Barrier allows the barrier to slide smoothly between adjacent skirts of an insulator and then hold the barrier securely in place. This forms a long term barrier on substation equipment, such as disconnects, switch insulators, arrestor and bus support terminators, and insulators.

The E/Flex Barrier's innermost rings are easily clipped with a set of standard lineman pliers to allow it to fit virtually all insulator core diameters.

It also allows for easy on/off applications and re-use without the worries of the barrier cracking or breaking.

## Part #:

E/FLEX BAR - En - 16" (40.6 cm) - Gray  
E/FLEX BAR - En - 20" (50.8 cm) - Gray  
E/FLEX BAR - En - 24" (60.9 cm) - Gray  
E/FLEX BAR - En - 16" (40.6 cm) - Red  
E/FLEX BAR - En - 20" (50.8 cm) - Red  
E/FLEX BAR - En - 24" (60.9 cm) - Red

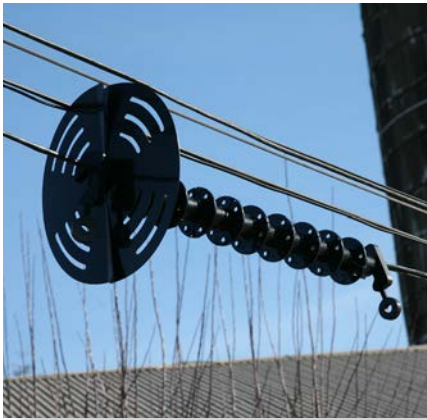
## Product Description

E/Flex Barrier - Energized - 16" (40.6 cm) Gray  
E/Flex Barrier - Energized - 20" (50.8 cm) Gray  
E/Flex Barrier - Energized - 24" (60.9 cm) Gray  
E/Flex Barrier - Energized - 16" (40.6 cm) Red  
E/Flex Barrier - Energized - 20" (50.8 cm) Red  
E/Flex Barrier - Energized - 24" (60.9 cm) Red



# E/GETAWAY GUARD

Wildlife guard to prevent animals from gaining access to substations through overhead power lines.



The initial step to stop outages from occurring is to keep animals out of substations. The E/Getaway Guard is designed to reduce the risk of animal induced outages in open-air substations by preventing climbing animals, such as squirrels, access through the overhead power lines.

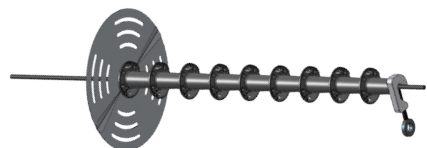
The E/Getaway Guard consists of 1 large disc assembly and 9 small collars. All discs allow for a free rotation, making it virtually impossible for a squirrel to enter the substation. Installation is quick and easy, and can be applied on de-energized lines or on energized line with a hot stick and energized tool.

The E/Getaway Guard is made with a UV, flame and arc resistant material designed to withstand essentially all weather conditions and to be environment-proof for long-term protection.

Use an E/Getaway Guard on each overhead power line, guy wire and cable conductor entering the substation for the most effective animal protection.



Getaway Guard energized installation tool



Part #:

E/GETAWAYGUARD

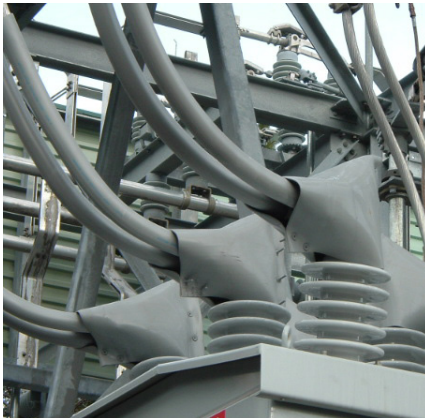
Product Description:

E/Getaway Guard

Includes: (1) Large Disc (Must assemble right and left half),  
(2) Clamps, (9) Small Collars, (6) Push in Plugs

# E/SILICONE SHEET

A distribution and substation class silicone sheet used to make custom covers, rated with a minimum 25 kV phase-to-ground to prevent animal induced outages.



The E/Silicone Sheet is a high temperature vulcanized custom compound silicone sheet with a polyester fabric reinforcement. Made from 65 durometer silicone, almost 1/8" thick, it is a roll that allows you to custom cut covers for unique phase-to-phase and phase-to-ground areas of substation and distribution equipment.

The sheets are hydrophobic, flexible and customizable. They can be easily field modified to cover and insulate the most awkward and difficult shapes in your energized system. E/Silicone Sheets offer a minimum of 25 kV phase-to-ground insulation.



The E/Silicone Sheets can be used in any environment. The natural hydrophobicity of silicone along with its superior UV and chemical resistant properties sustain expected life beyond 20 years. Install and forget. No other plastisol, polypropylene, polyethylene or heat shrink cover has the long-term life of the E/Silicone Sheets. In addition, the custom made cover can be held together by our push pins or by E/Fusing Tape.

Part #:	Product Description:
E/SS	24" x 120" Silicone Sheet (60.9 x 304.8 cm)
E/SS - 30	30" x 120" Silicone Sheet (76.2 x 304.8 cm)

\*Push Pins and Tape sold separately.





# Midsun Group Material Data and Specifications for Silicone Covers and E/Insulation

Midsun Group Silicone Products are manufactured from a 65 durometer high temperature vulcanized silicone rubber, similar to the polymer insulators used today, making the covers virtually puncture resistant. Rated for a minimum of 20kV phase-to-ground insulating protection, the material is also flame and arc resistant. The silicone material is UV resistant preventing the degradation caused by ultra violet sunlight radiation, it will not chalk, crack or become brittle. The hydrophobic features of the material will help prevent tracking caused by contamination build up. The silicone material is flexible enough or it can be easily field modified to allow for the covers to fit over most odd shaped connections. All covers are held closed with the standard Midsun silicone push pins, which unlike tie wraps, will not break down making the cover weak and an unreliable animal contact protection system.

## Properties

Colors .....	Gray, Orange
Durometer (ASTM D2240) .....	65 ± 10
Tensile Strength, p.s.i. (ASTM D412) .....	600
% Elongation @ Break (ASTM D412) .....	300
Breaking Strength .....	Excellent
Brittle Point, F (ASTM D74C) .....	-90
Dielectric Strength (ASTM D149) v/mil .....	550
U.V. Weathering/5000 hours (ASTM G53) .....	No Significant Change
Chemical Resistance .....	Excellent
Fire Retardance (UL94) .....	Self Extinguished in 15 sec.

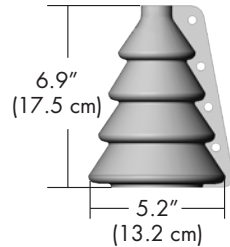


# DISTRIBUTION COVERS

These products, as their names imply, were designed to protect distribution circuits from animal and weather induced outages.

As is the case with many of our previous covers, they are designed to be multi functional for applications other than Distribution Pole Top protection. Many times it is the size and/or shape of specific equipment that dictates which cover will work for animal contact protection. We at Midsun design our covers so that they will meet the wide variety of products offered by the manufacturers in today's market. These covers are designed to meet all specifications required to ensure a maximum level of protection during the life of your equipment.

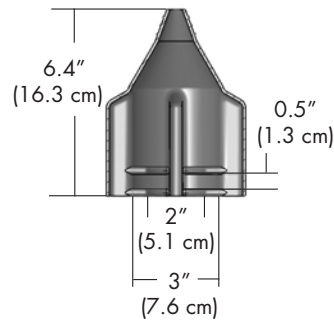
## E/BUSHING COVER - HALF



Silicone bushing cover designed to fit **small** station service transformer bushings, PT's and CT's, and pole top transformer bushings

Part #:  
E/BUSH CV - HALF

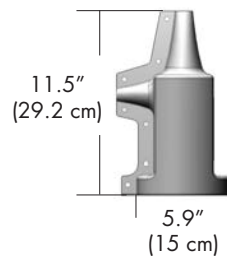
## E/BUSHING COVER - SMALL



Silicone bushing cover designed to fit **small** station service transformer bushings, PT's and CT's, and pole top transformer bushings

Part #:  
E/BUSH CV - SMALL

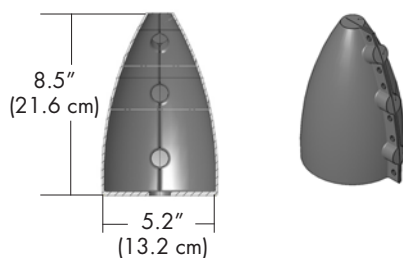
## E/BUSHING COVER - SIDE



Silicone cover designed for recloser bushings. Perforated bottom allows it to fit various sized bushings

Part #:  
E/BUSH CV - SIDE

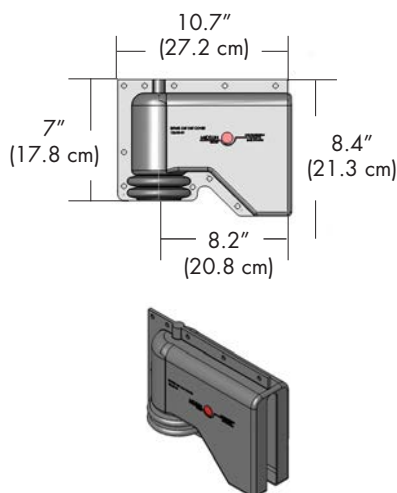
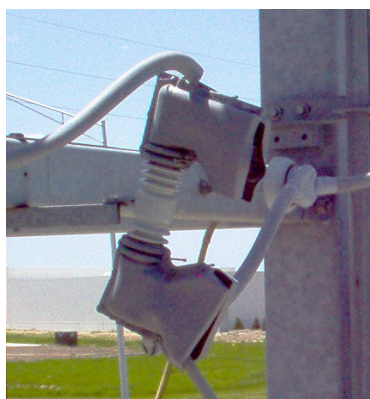
## TERMINATION COVER



Silicone cover designed to cover underground termination bushings

Part #:  
TERMINATION COVER

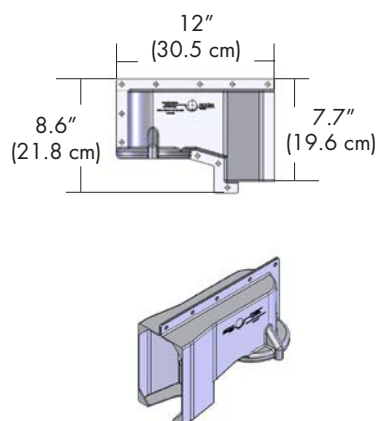
## E/CUTOUT COVER



Silicone cover designed for use on fuse cut out switches. Design allows for easy opening and closing of fuse

Part #:  
E/CUTOUT CV

## E/CUTOUT COVER - LARGE

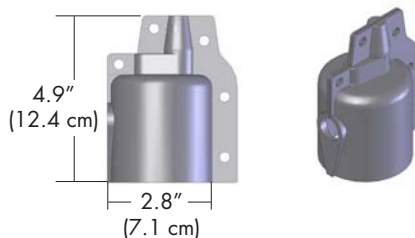


Silicone cover designed for use on larger fuse cut out switches. Design allows for easy opening and closing of fuse

Part #:  
E/CUTOUT CV - LARGE



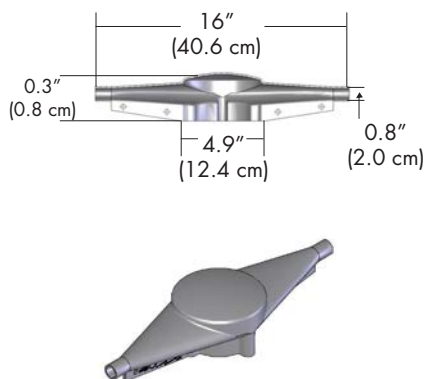
## POLE TOP TRANSFORMER COVER



Silicone cover designed to fit pole top bushing with hand wheels. The cover can be applied without having to break hand wheel lug connection

Part #:  
POLE TOP TRANSFORMER COVER

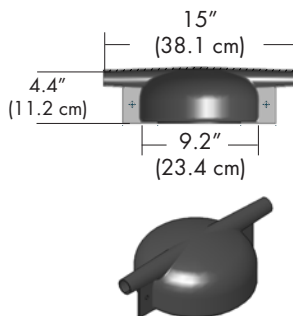
## PIN INSULATOR COVER - SMALL



Silicone cover designed to protect against bird and animal contact on standard crossarm pin insulators

Part #:  
PIN INSULATOR COVER - SMALL

## PIN INSULATOR COVER - LARGE



Silicone cover designed to protect against bird and animal contact on large crossarm pin insulators

Part #:  
PIN INSULATOR COVER - LARGE

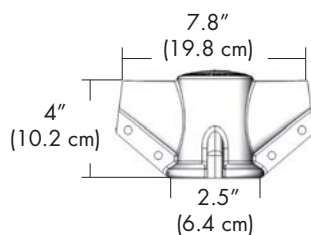
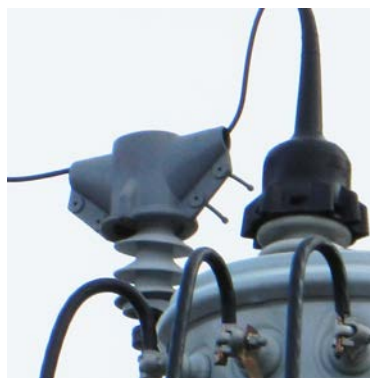




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## SURGE ARRESTOR COVER

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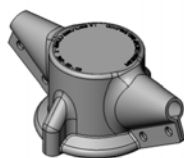
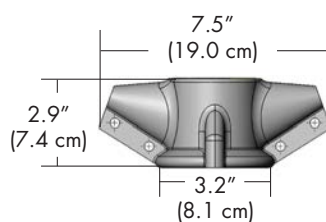
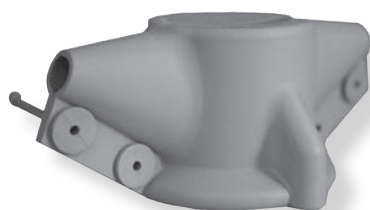
Silicone cover designed to fit taller lightning arrestors with a pass through lead or pole top bushings

Part #:  
SURGE ARRESTOR COVER

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## TRANSFORMER LIGHTNING ARRESTOR RECLOSER COVER

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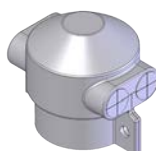
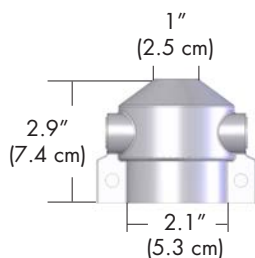
Silicone cover designed to fit either pole top bushings or lightning arrestors with a pass through lead

Part #:  
E/T - LA - RECLOSER COVER

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## CAPACITOR COVER

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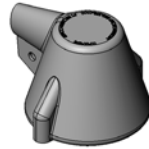
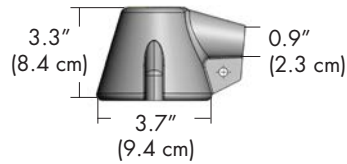
Silicone cover designed to protect energized portion of capacitor bushings

Part #:  
CAPACITOR COVER

---

## POLE TOP LIGHTNING ARRESTOR RECLOSER COVER

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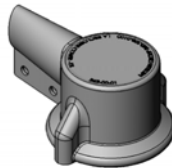
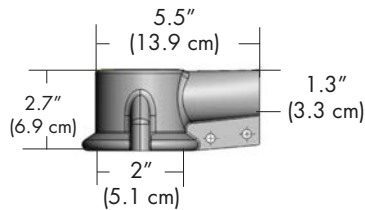
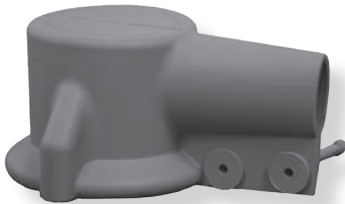
Silicone cover designed for pole top arrestors with a single lead at a right angle. It may also be used for pole top right angle bushings

Part #:  
E/PT - LA - RECLOSER COVER

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## DOUBLE LEAD LIGHTNING ARRESTOR RECLOSER COVER

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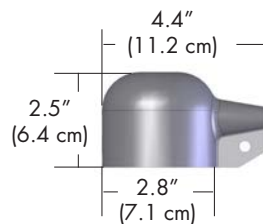
Silicone cover designed for pole top arrestors with double leads at a right angle. It may also be used for pole top right angle bushings

Part #:  
E/DL - LA - RECLOSER COVER

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## POLE TOP LIGHTNING ARRESTOR CAP

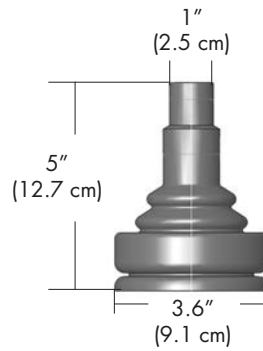
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Silicone cover designed for pole top right angle lightning arrestor

Part #:  
POLE TOP LIGHTNING ARRESTOR CAP

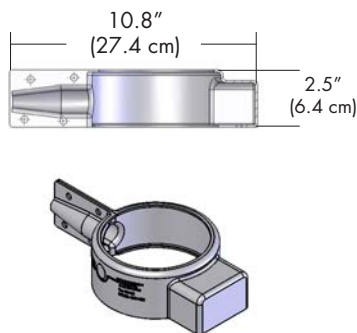
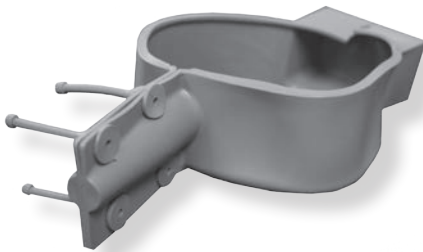
## CAPACITOR BOOT



Capacitor boot

Part #:  
CAPACITOR BOOT

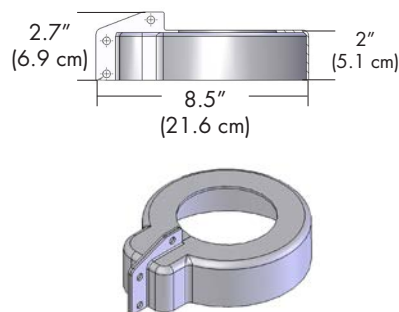
## CAPACITOR CURRENT SENSOR COVER



Silicone cover designed to insulate the bottom sensor of a Fisher Pierce current sensor

Part #:  
CAPACITOR CURRENT SENSOR COVER

## FP\* CURRENT SENSOR



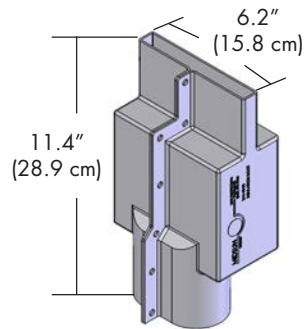
Silicone cover designed to insulate the bottom sensor of a Fisher Pierce current sensor

\*Fisher Pierce

Part #:  
FPS COVER



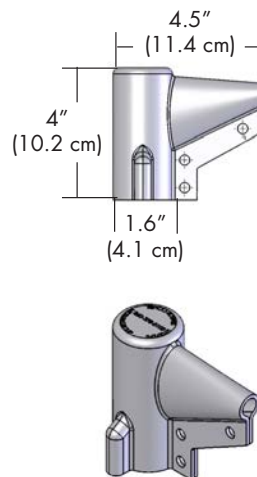
## BUS CABLE TERMINATION INSULATION COVER



Bus cable termination insulation cover

Part #:  
E/BCTIC

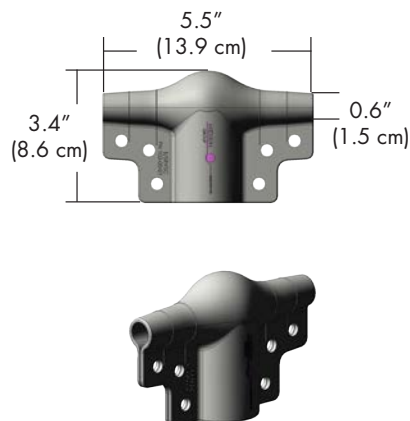
## L-SENSOR COVER



Silicone cover designed for right angle recloser sensors

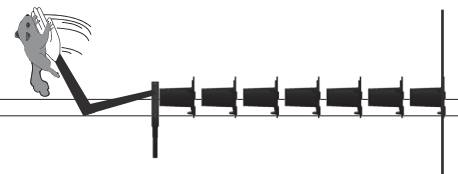
Part #:  
L-Sensor Cover

## S.\* RECLOSER VOLTAGE SENSOR COVER



Silicone T-shaped cover designed for use on recloser T-sensors  
\*Siemens

Part #:  
E/SRVSC



# MIDSUN COATINGS

Midsun Group offers a variety of protective coatings to restore and preserve utility and substation equipment.

The 570™ HVIC is a silicone RTV coating that is an essentially maintenance free system that can prevent excessive leakage current, tracking and flash-overs due to contamination.

The 579 Silprocoat is a silicone coating with excellent chemical resistance and good adhesion characteristics, that provides an ideal coating material for corrosion protection and lead paint encapsulation.

The 587 Paintable Insulation is a silicone coating that protects vulnerable phase-to-phase and phase-to-ground areas. It adds insulation to any structures made with metals, capacitors, transformers, and cable accessories.

Midsun Group's coatings will help protect your utility and substation equipment from corrosion and weather elements, saving you thousands of dollars in repair costs.

\*570 HVIC and 579 Silprocoat coatings are available in VOC compliant formulations.





# MIDSUN 570™ HVIC

## RTV Silicone High Voltage Insulator Coating

Midsun 570 HVIC is a one part RTV silicone high voltage insulator coating that prevents flash-overs due to leakage current in contaminated environments. It is not affected by UV light, temperature, corrosive environments, or ATH pitting from dry band arcing. The coating is also highly water repellent, so contaminants cannot film out over the surface. It is a long-term solution to flash-over protection. We offer turnkey live line application applied by Midsun OSHA trained certified applicators.

### Protect against flash-over contaminants:

- Salt
- Coal Dust
- Cement Dust
- Sugar Cane Carbon
- Fly Ash
- Bird Droppings/Streamer
- Cooling Towers

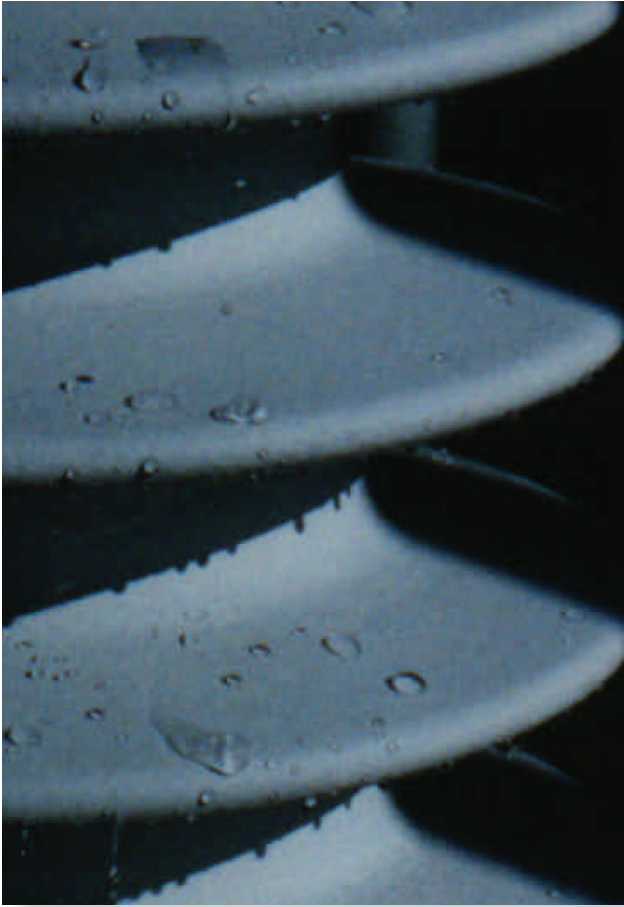
### The coating will eliminate or reduce:

- Regular insulator washing
- Periodic re-application of grease
- Replacement of components damaged by flash-overs
- Repair silicone sheds and rod damage on composite insulation systems

\* Custom formulations and special tools required for energized applications, call for details.

Flash Point Temperature.....	65°F (18°C)
Dielectric Strength.....	35.9 kV/mm
Dissipation Factor @ 100 MHz.....	0.021
Tracking & Erosion Resistance @ 2.5 kV/min.....	1000 hours withstand
Dielectric Constant @ 100 Hz.....	3.85
Solids Content.....	75% volume
Specific Gravity.....	1.28
Viscosity.....	3500-5500 CPS
Application Temperature Range.....	32-120°F (0-50°C)
Coverage.....	Min. 15 Mils
Est. Skin-over time @ 25°C; 50% relative humidity.....	15 min.
Est. Tack-free time @ 25°C; 50% relative humidity.....	30 min.
Useable Temperature Range.....	-40 - 350°F (-40 to 180°C)
Color.....	Gray or White
Storage Time & Temperature.....	1 year < 77°F (25°C)*

\*Store properly out of sun, under dry conditions away from heat sources.



# MIDSUN 579 SILPROCOAT

Corrosion protection silicone coating

Midsun 579 Silprocoat is a one part silicone elastomer coating. Silicone elastomer coatings are well known for their excellent chemical and weathering resistance. Combined with good adhesion characteristics, they provide an ideal coating for lead paint encapsulation and corrosion protection of power system apparatuses, metal hardware and structures, oil and gas storage tanks, pipes and metal barriers. Midsun Silprocoat is designed for protecting a wide range of substrates from the effects of moisture and weathering. It is an ideal coating to use in extreme harsh environments such as coastal, industrial, and desert areas.

Midsun 579 Silprocoat RTV Coating has proven superiority over:

- Epoxy systems that become embrittled, chalk and flake
- Alkyds and modified silicone alkyds that peel, chalk, and fade
- Two part systems with indeterminate pot lives and complicated mixing
- High cost encapsulating systems in asbestos and lead paint abatement
- Zinc rich coatings that are difficult to field apply, mud crack and need top coats

\* Spec Sheet available upon request.





# MIDSUN 587 E/PAINTABLE INSULATION

Brush, roll, or spray on insulation for your hardest hit areas

Midsun 587 E/Paintable Insulation is a one part paintable silicone coating that protects and insulates vulnerable phase-to-phase and phase-to-ground areas. An application of 30 mils (dry) on metal surfaces provides 10kV insulation strength. When applied to the surface of electrical insulation such as FRP Barrier Boards, E/Paintable Insulation imparts water repellency and arc-track resistance. It features superb unprimed adhesion to galvanized metal and most plastic materials.

E/Paintable Insulation is a unique formula of silicone rubber technology offering high dielectric strength in a paintable insulation.

- Prevents power system outages and damage caused by animals
- Has high dielectric strength
- Easy-to-apply one-coat application
- Has excellent atmospheric and chemical resistance
- Becomes a tough, impact-resistant coating

\* Spec Sheet available upon request.





# MIDSUN HIGH VOLTAGE INSULATOR CLEANING

Insulator cleaning using dry abrasive medium

Midsun Group, Inc. offers an energized high voltage insulator cleaning service for electrical and industrial utility companies nationwide. All work is performed by OSHA trained Midsun technicians using a dry abrasive method.

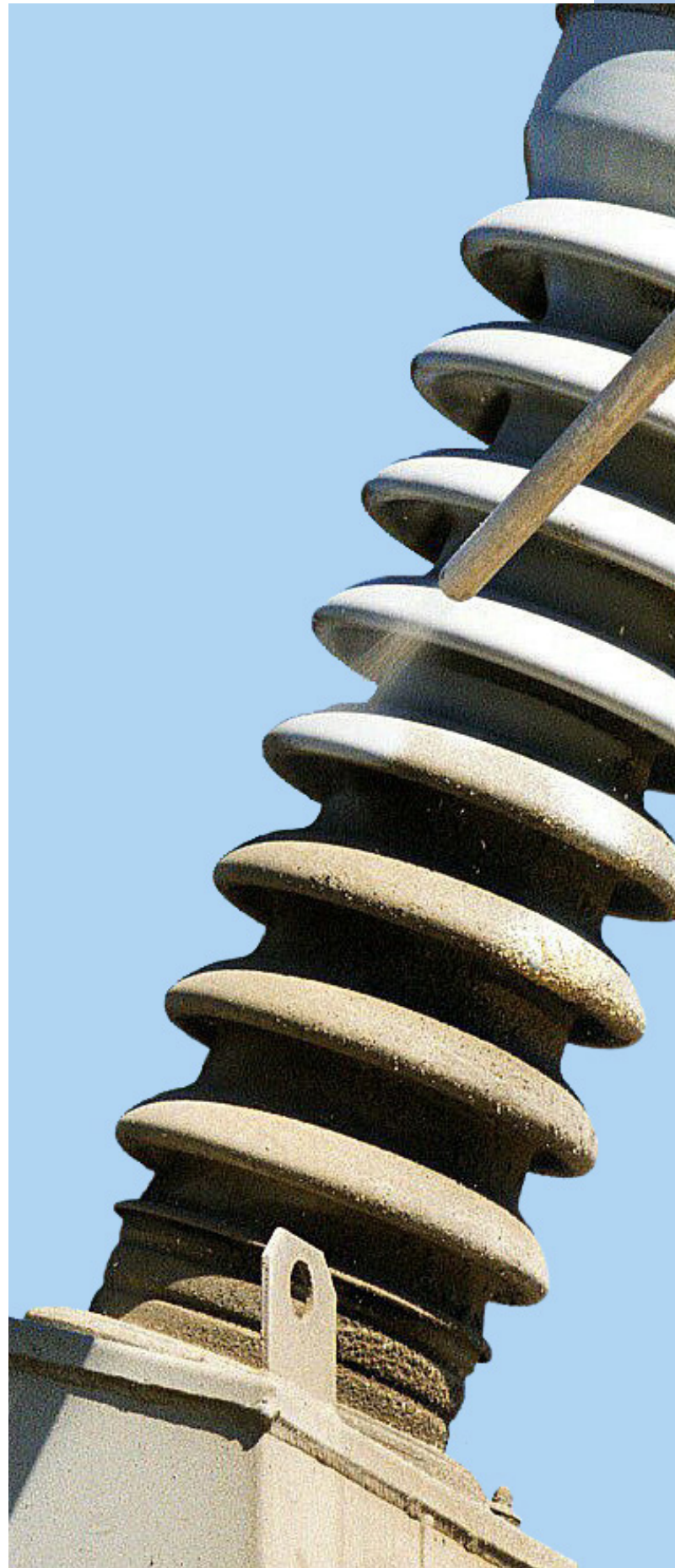
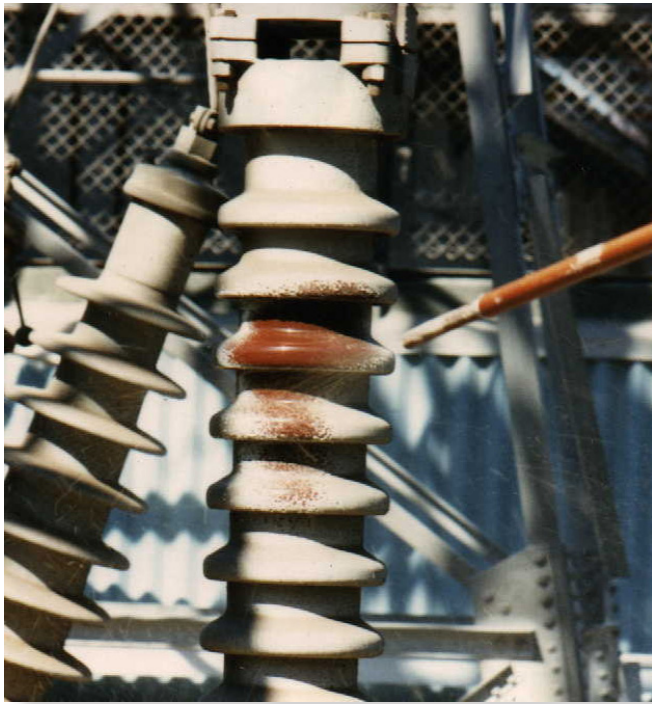
Midsun specializes in the cleaning of high voltage insulators in electrical power plants, distribution substations, transformer substations and on outdoor switchgear.

Periodic cleaning of insulators in highly contaminated areas becomes crucial in the electric utilities. The contamination of high voltage insulators greatly affects the insulating properties needed to protect your electrical equipment, which may lead to costly inadvertent outages and possible equipment damage.

By the use of dry abrasives materials Midsun is able to remove the contaminants that may lead to an electrical discharge which can cause flashovers. Cleaning with these dry abrasive materials is a very effective and efficient way to remove hard deposits such as cement and fertilizers. They are also effective in removing soft, but difficult materials such as insulator grease, without causing damage to the insulator or affecting its properties.

Midsun can mobilize a crew, in most cases with short notice.





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