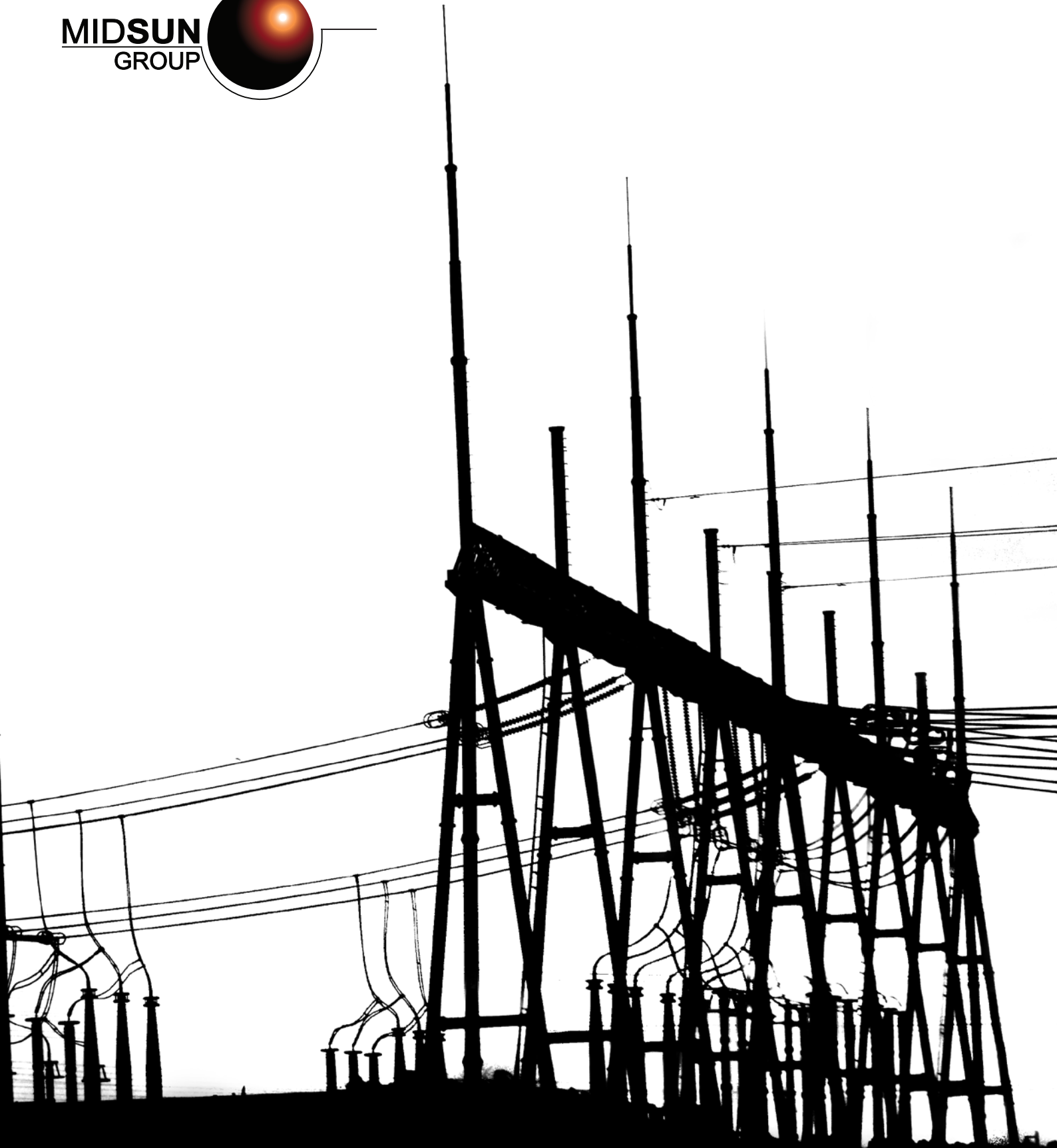
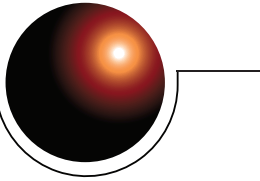


MIDSUN
GROUP



EXTEND THE LIFE
OF YOUR POWER UTILITY EQUIPMENT

Protect your assets and
improve their
PERFORMANCE



CONTENTS

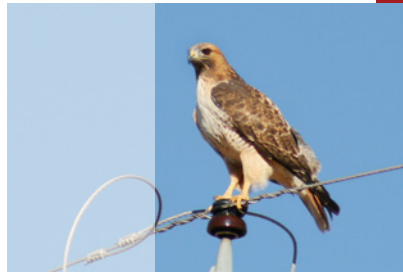


6



About Us

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Our Services

- 10 E/Fusing Tape
- 12 E/Insulation
- 14 E/Covers
- 30 E/Barriers
- 34 E/Accessories

About Us

WHO WE ARE

We are Midsun Group Inc., a US-based company with international operations established in 1992. We help power utility, industrial and telecommunications industries by providing services and products to increase reliability and save companies time and money. Midsun manufactures long lasting RTV coatings for high voltage insulators, anti-corrosion silicone coatings and wildlife protective silicone covers. We strive to excel in terms of product, services, price, performance and delivery.



OUR OFFERINGS

- Silicone covers and silicone RTV coatings
- Global Applicator Network
- Demonstrations and training
- Multilingual service and experts
- Custom-made solutions and products
- Fast delivery





WHY US ?



Vast Experience

We have served electrical utilities Transmission Substation Operations and Distribution Substation Operations, refineries and industrial plants since 1992.



Worldwide Presence

We have worked in over 55 countries covering 5 continents and in over 20 languages.



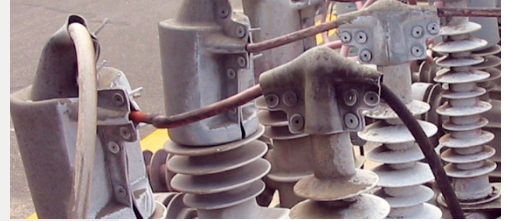
Earned Trust

We are a trusted American brand providing products and services for the largest electrical utilities across the USA and worldwide.

Why Silicone?

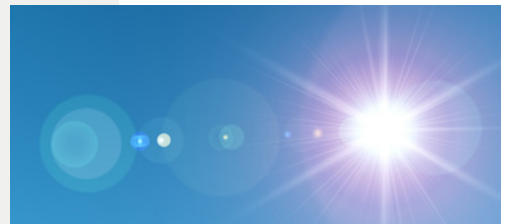
Aging & Longevity 🕒

Silicone rubber provides superior insulation and dielectric strength. It ages very slowly and outperforms plastic covers. Our products provide increased reliability and a long-term solution for utilities throughout the world.



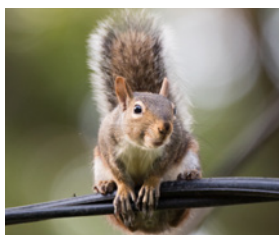
UV and Weather Resistant ☀️💧

Unlike other generic plastic covers in the industry, silicone is naturally resistant to ultraviolet rays and will not fade or break down in direct sunlight. Silicone also provides resistance to extreme temperatures and contaminants in harsh environments making them exceedingly durable.



Versatility 🔄

Silicone is flexible, hydrophobic and can be custom-fit to solve nearly any wildlife protection problem. Regardless of inclement weather or animal contact, we have a cover or coating to help prevent disaster.



Animal Outage Protection

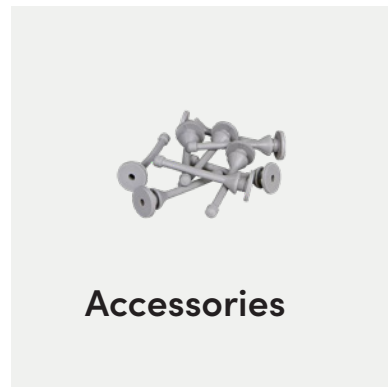
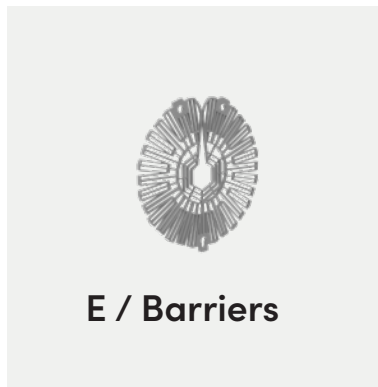
■ Your Equipment is at Risk

Animals hanging around your transmission, substation and distribution power equipment poses a very large danger to both animals and the reliability of your assets. When wildlife creates a connection via phase-to-phase or phase-to-ground contact, it can trigger an arc flash, leading to severe outages.

Such disruptions can impose significant costs and inconvenience on both the utility and its customers.

■ E/Products | Your Solution

We offer an extensive selection of extruded, molded and mandrel wrapped silicone protection products for electrical transmission, substation, and distribution lines. Our silicone wildlife products provide a cost-effective and easy-to-install solution to animal phase-to-phase and phase-to-ground contact outages. They provide superior dielectric strength, tracking resistance, thermal endurance, and UV protection.



E/Fusing Tape

MEETS IEEE 1656 STANDARD

E/FUSING TAPES

Our 30Mil self-fusing silicone tape forms a custom-fit, insulating barrier to prevent animal contact with complex power utility equipment. E/Fusing tape provides **15kV phase-to-ground** insulation rating with a single wrap and 30kV with a double wrap.



30 mil
(.78 mm)
Thickness

FEATURES:

- Self - fusing
- Flexible - Conforms to odd shaped equipment
- Resists UV, corona, salt, weather and chemicals
- Silicone rubber resists aging and weathering
- Available in Gray or Red
- Available in various widths



Part number:

E/FTP - 100G - Gray, 30 mil, 1 in x 36 ft,
.78 mm x 25.4 mm x 10.9 m

E/FTP - 100R - Red, 30 mil, 1 in x 36 ft,
.78 mm x 25.4 mm x 10.9 m

E/FTP - 250G - Gray 30 mil, 2.5 in x 36 ft,
.78 mm x 63.5 mm x 10.9 m

E/FTP - 250R - Red 30 mil, 2.5 in x 36 ft,
.78 mm x 63.5 mm x 10.9 m

E/FTP - 400G - Gray 30 mil, 4 in x 36 ft,
.78 mm x 101.6 mm x 10.9 m

E/FTP - 400R - 30 mil, Red - 4 in x 36 ft,
.78 mm x 101.6 mm x 10.9 m

Installation Instructions



HIGH INSULATION E/FUSING TAPES

Our 80Mil self-fusing silicone tapes offer **35 kV phase-to-ground** insulation with a 2/3 overlap and a 10% stretch with a single wrap. A second 2/3 overlap of tape will achieve 50 kV phase-to-ground insulation. Available in a 2.5 in and 4 in width.

80 mil
(2.0 mm)
Thickness



E / Fusing

FEATURES:

- Self - fusing
- Flexible - Conforms to odd shaped equipment
- Resists UV, corona, salt, weather and chemicals
- Silicone rubber resists aging and weathering
- Available in Gray or Red



Part number:

E/FTP - 25080 - 35kV Gray - 80 mil, 2.5 in x 15 ft, 2.0 mm, 63.5 mm x 4.572 m

E/FTP - 25080 - 35kV Red - 80 mil, 2.5 in x 15 ft, 2.0 mm x 63.5 mm x 4.572 m

E/FTP - 480 - 35kV Gray - 80 mil, 4 in x 15 ft, 2.0 mm x 101.6 mm x 4.572 m

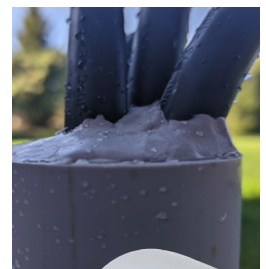
E/FTP - 480 - 35kV Red - 80 mil, 4 in x 15 ft, 2.0 mm x 101.6 mm x 4.572 m

MOLDABLE SILICONE PUTTY

Fill voids to prevent animal or liquid incursion. Use on potheads, conduits, pipes, seams, gaps and more. Can also be used to replace custom gaskets and build channels to divert liquid away from areas of concern. Works on masonry, PVC, ABS, metal, wood, ceramic, glass, and more.

FEATURES:

- Low water absorption – Divert or block liquid on nearly any surface
- Excellent resistances – Resists UV, corona, salt, weather, and extreme temps
- Stays pliable – Will not harden, brittle, crack or craze due to weathering
- Great dielectric strength – Rated 400V/mil
- Reusable – Can be removed and remolded into other areas



E900-010 - 0.25 in thick x 1 in wide x 18 in long, 0.635 cm x 2.54 cm x 45.72 cm

E/Insulation

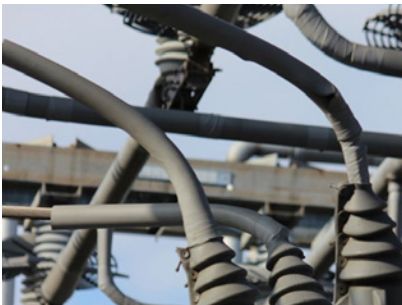
MEETS IEEE 1656 STANDARD

APPROVED FOR RURAL UTILITIES SERVICE

Silicone conductor covers are used to protect a variety of distribution and substation equipment at 20 kV phase-to-ground. E/Insulation is manufactured with a split seam to allow for an easy application without the need of breaking electrical connections.

FEATURES:

- Reusable
- Easy on/off application
- Weather, flame arc, ozone and UV resistant
- Durable
- Will not crack over time



E/Insulation Part # **E/INS-200-G** being used with E/Bus Support Cover Part # **E/BSC**

E/INSULATION 20KV SPLIT TUBING



Part #	Size	Conductor Size (AWG or kcmil)	Conductor (OD) Diameter Size
E/INS-025-G	.25 in. (6.35 mm)	4, 6	.250 in (6.35 mm)
E/INS-050-G	.50 in. (12.7 mm)	2, 1/0, 2/0, 3/0, 4/0	.251 in - .500 in (6.38 mm - 12.70 mm)
E/INS-075-G	.75 in. (19.05 mm)	266.8 - 336.4, 397.5	0.501 in - 0.750 in (12.73 mm - 19.05 mm)
E/INS-100-G	1.00 in. (25.4 mm)	447, 556.5, 605, 636, 666.6, 715.5	0.751 in - 1.00 in (19.08 mm - 25.4 mm)
E/INS-125-G	1.25 in. (31.75 mm)	795, 900, 954, 1033.5, 1113,	1.001 in - 1.25 in (25.65 mm - 31.75 mm)
E/INS-150-G	1.50 in. (38.1 mm)	1192.5, 1272, 1351.5, 1431, 1590	1.251 in - 1.500 in (31.78 mm - 38.10 mm)
E/INS-175-G	1.75 in. (44.45 mm)	1780, 2156, 2167, 2300	1.504 in - 1.735 in (38.20 mm-44.07 mm)
E/INS-200-G	2.00 in. (50.8 mm)	2312, 2515	1.760 - 1.980 (44.70 mm - 50.29 mm)

E/INS-025 - E/INS-175 - Packaging: consists of 50 ft increments (15.2 m)

E/INS-125 - G-175-G - Packaging: 2, 25 ft increments

E/INS-200 - Packaging: 25 ft per box - Available in Orange

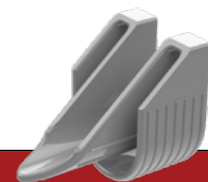
E/INSULATION 15 KV THIN WALL SPLIT TUBING

Part #	Rating	Wall Thickness
E/INS-Thin Wall-025 -G	15 kV phase to ground	.100 +/- .020
E/INS-Thin Wall-050-G	15 kV phase to ground	.100 +/- .020
E/INS-Thin Wall-075-G	15 kV phase to ground	.100 +/- .020
E/INS-Thin Wall-100-G	15 kV phase to ground	.100 +/- .020
E/INS-Thin Wall-125-G	15 kV phase to ground	.100 +/- .020

100 ft (30.48 m) per box

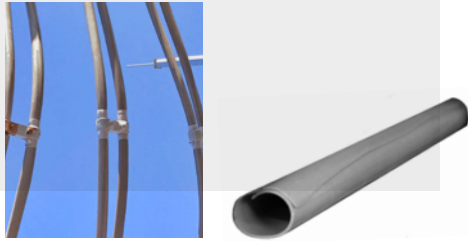
E/Insulation Thin Wall is a silicone split line rubber hose used mainly in distribution and rated up to **15 kV phase-to-ground**. It is lighter in weight than the standard E-Insulation, and more economical in cost.

E/INSULATION INSTALLATION TOOLS



E/Insulation Hand Glider

Product Name	Part #	Drawing	Compatible With
Hand Glider Speeds up installation	E-INS-GLIDER-750	329-00-01	E/INS-025-G, E/INS-050-G, E/INS-075-G, E/INS-THIN WALL-050-G, E/INS-THIN WALL-075-G



POLYESTER REINFORCED

- **E/INS-250G** - 2.5 in. (63.50 mm)
- **E/INS-350G** - 3.5 in. (88.90 mm)
- **E/INS-450G** - 4.5 in. (114.30 mm)
- **E/INS-650G** - 6.5 in. (165.10 mm)

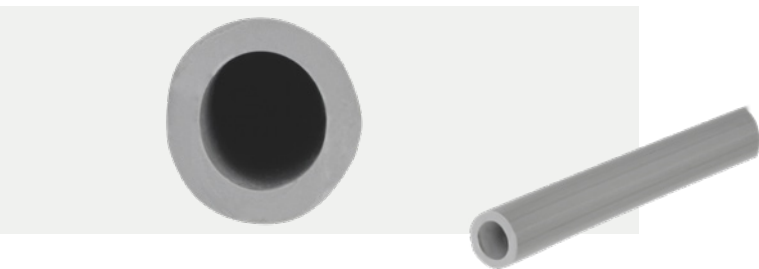
E/INS-250-G - E/INS-650-G - Packaging: consists of 50 ft, 15.2 m increments (Five 10 ft, 3.0 m pieces)

E/LARGE DIAMETER ROUND BUS COVER

UNREINFORCED

- **E/INS-EXT-250G/5** - 2.5 in. (63.50 mm)
- **E/INS-EXT-350G/5** - 3.5 in. (88.90 mm)
- **E/INS-EXT-450G/5** - 4.5 in. (114.30 mm)

5 ft, 1.52 m per box



E/TUBE SEAMLESS COVER

- **E/Tube-050/094-G**- Insulation Size: 0.50 in | Conductor (AWG) Size: 3/0, 4/0 | Conductor OD Diameter Size: 0.4096 in - 0.500 in (10.40 mm - 12.70 mm)

100 ft, 30.48 m per box



E/T BUS COVER UNIVERSAL

- **E/T-BUS Cover** - 3.5 in. x 5.73 in. x 5 ft (88.9 mm x 145.4 mm x 1.52 m)

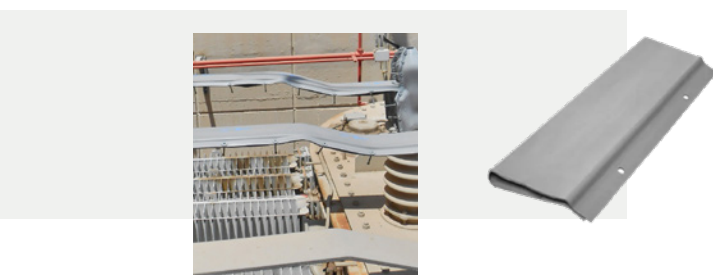
Available in 5 ft increments (1.5 m)



E/ANGLE BUS COVER

- **E/INS-ABC-325" Tail-G-60"** - 3.25 in. (82.55 mm)
- **E/INS-ABC-4.00" Tail-G-60"** - 4.0 in. (101.60 mm)

Available in 5 ft increments (1.5 m)



E/FLAT BUS COVER

- **E/INS-FLAT325G-5** - 3.25 in. (82.55 mm)
- **E/INS-FLAT400G-5** - 4.0 in. (101.60 mm)

Available in 5 ft increments (1.5 m)



E/Silicone Covers

MEETS IEEE 1656 STANDARD

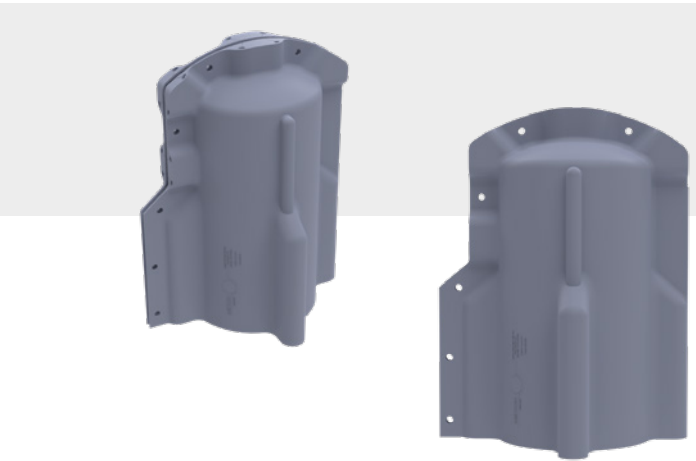
APPROVED FOR RURAL UTILITIES SERVICE

Our silicone covers are designed to protect various styles of energized connections. Unlike other plastic solutions, you can make modifications to our covers to make an optimal fit. They all offer up to 25 kV phase-to-ground insulation.

FEATURES:

- Superior dielectric strength
- Flame Retardant
- Made from 65 durometer silicone
- Superior UV and chemical resistance
- Expected life span beyond 20 years
- Hydrophobic





■ E/BUSHING COVER EXTRA LARGE

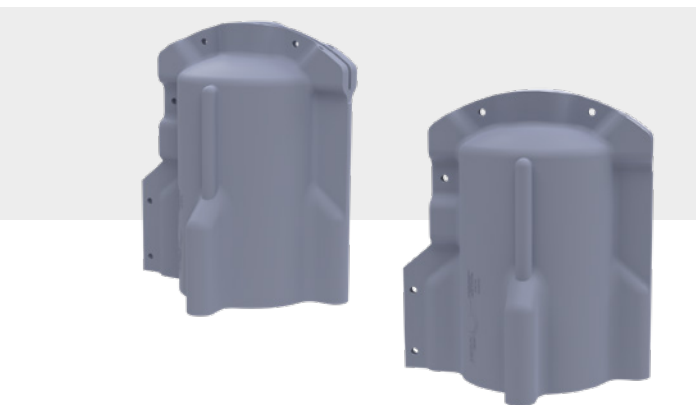
Technical Data:

This product will insulate a bushing with a height up to 11.8 in., 299.72 mm and a width of 6.7 in., 170.18 mm.

Part number: **E/BC-X-LGE**
Drawing Number: 346-00-01



E / Covers



■ E/BUSHING COVER MEDIUM

Technical Data:

This product will insulate a bushing with a height up 10.86 in., 275.84 mm tall and a width of 6.7 in., 170.18 mm.

Part number: **E/BC-M**
Drawing Number: 346-00-02

E/BUSHING COVER LARGE

Technical Data:

This product will insulate a bushing with a diameter up to 8 in., 203.2 mm.

Part number: **E/BC-LG**

Drawing Number: 128-00-01



ACCESSORIES FOR E/BUSHING COVER LARGE



E/LARGE BUSHING COVER RIGHT ANGLE EXTENSION

Technical data:

Gives an additional 6.8 in., 172.72 mm to the width of the bushing cover and also features a right angle exit point.

Part Number: **E/BC-LG-X-WRA-CAP**

Drawing Number: 205-00-01



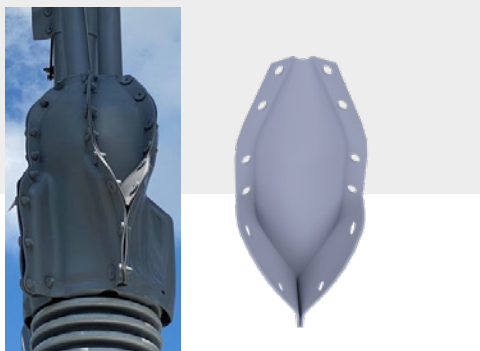
E/LARGE BUSHING COVER WIDTH EXTENSION

Technical data:

Gives an additional 6.8 in., 172.72 mm to the width of the bushing cover.

Part Number: **E/BC-LG-X-W**

Drawing Number: 199-00-01



E/LARGE BUSHING COVER WIDTH TOP EXTENSION

Technical data:

Gives an additional 5 in., 127.0 mm to the top/width of the bushing cover.

Part Number: **E/BC-LG-X-WT**

Drawing Number: 202-00-01

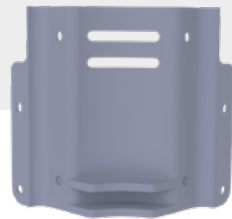


E/LARGE BUSHING COVER HEIGHT EXTENSION

Technical data:

Gives an additional 6.1 in., 154.94 mm to the height of the bushing cover.

Part Number: **E/BC-LG-X-H**
Drawing Number: 201-00-01

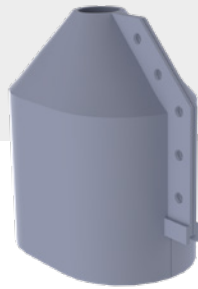


E/LARGE BUSHING COVER HEIGHT FILLER EXTENSION

Technical data:

Extension used in conjunction with a height and width filler.

Part Number: **E/BC-LG-X-H/F**
Drawing Number: 203-00-01



E/LARGE BUSHING COVER RIGHT ANGLE PORT CONE

Technical data:

Extension used in conjunction with right angle extension.

Part Number: **E/BC-LG-X-WRA/CR5**
Drawing Number: 197-00-01



E/BUSHING COVER RIGHT ANGLE EXTENSION CAP

Technical data:

Cap for Bushing Cover Right Angle Extension.

Part Number: **E/BC-LG-X-WRA-CAP ONLY**
Drawing Number: 195-00-01







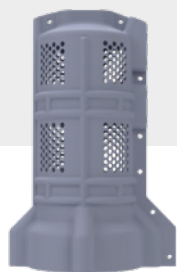
E/BIRDCAGE MEDIUM

Technical data:

Silicone cover with semi-exposed walls allows for easy visual and IR inspection and visibility while covering medium bushings with a double or single lead connection.

Part Number: **E/BIRDCAGE-MED (W/ SUPPORT)**

Drawing Number: 302-00-01



E/BIRDCAGE LARGE

Technical data:

Silicone cover with semi-exposed walls allows for easy visual and IR inspection and visibility while covering large bushings with a double or single lead connection.

Part Number: **E/BIRDCAGE-LGE (W/ SUPPORT)**

Drawing Number: 302-00-02



E/BUSHING COVER FULL

Technical data:

Silicone bushing cover designed to fit medium sized transformer breaker, and regulator bushings and arrestors. Will fit bushing diameters up to 5 in., 127.0 mm.

Part Number: **E/BC-Full**

Drawing Number: 129-00-01



E/BUSHING COVER HALF

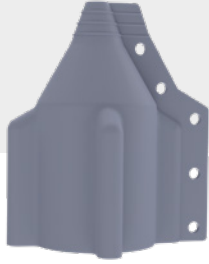
Technical data:

Silicone bushing cover designed to fit small station service transformer bushings, PT's and CT's, and pole top transformer bushings, from 6.9 in., 175.26 mm high with an opening of 5.2 in., 132.08 mm.

Part Number: **E/BC-Half**

Drawing Number: 130-00-01





E/BUSHING COVER SMALL

Technical data:

Silicone bushing cover designed to fit small station service transformer bushings, PT's and CT's, and pole top transformer bushings with a height of 6.4 in., 162.56 mm and with an opening of 3 in., 76.2 mm.

Part Number: **E/BC-Small**

Drawing Number: 210-00-01



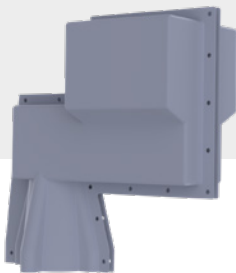
E/BUSHING COVER SIDE

Technical data:

Silicone bushing cover designed for recloser bushings. Perforated bottom allows it to fit various sized bushings that are up to 11.5 in., 292.1 mm high with an opening of 5.9 in., 149.86 mm wide.

Part Number: **E/BC-Side**

Drawing Number: 180-00-02



E/BUSHING COVER C-BAR

Technical data:

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

Part Number: **E/C-BAR CV**

Drawing Number: 287-00-01



E/BUSHING COVER MULTIPOINT

Technical data:

Silicone cover that accommodates bushings with multiple lead connections.

Part Number: **E/BC-Multipoint**

Drawing Number: 185-00-01



E/RIGHT ANGLE BUSHING COVER

Technical data:

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

Part Number: **E/BC-RA**

Drawing Number: 104-00-02



E/90° RIGHT ANGLE BUSHING COVER

Technical data:

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

Part Number: **E/BC-90RA**

Drawing Number: 236-00-01



E/DOUBLE LEAD COVER

Technical data:

Silicone cover that accommodates bushings with multiple lead connections.

Part Number: **E/BC-DBL-LEAD**

Drawing Number: 155-50-01



E/LIGHTNING ARRESTOR COVER

Technical data:

Silicone cover designed to fit multiple substation lightning arrestors. Adapts to different bus and lead connections. Easy on/off application.

Part Number: **E/LAC**

Drawing Number: 137-10-01





E/BUS SUPPORT COVER

Technical data:

Silicone cover designed for bus support insulators. Accommodates round, flat or angle bus ranging from 0.5 in., 12.7 mm to 3 in., 76.2 mm.

Part Number: **E/BSC**

Drawing Number: 127-00-01



E/BUS SUPPORT COVER 3.50

Technical data:

Silicone cover designed to accommodate round, flat, or angle bus insulators ranging from 3 in. 76.2 mm to 4.5, 114.3 mm in.

Part Number: **E/BSC-350**

Drawing Number: 127-20-01



E/BUS SUPPORT COVER XL

Technical data:

Silicone cover designed for bus support insulators. Accommodates round, flat or angle bus ranging from 4.5 in., 114.3 mm to 5.5 in., 139.7 mm.

Part Number: **E/BSC – XL**

Drawing Number: 113-00-00



E/BUS SUPPORT COVER XXL

Technical data:

Silicone cover designed for bus support insulators. Accommodates round, flat or angle bus ranging from 4.00 in., 101.6 mm to 6.00 in., 152.4 mm.

Part Number: **E/BSC-XXL**

Drawing Number: 113-00-01



E/TERMINATION COVER

Technical data:

Silicone cover designed to cover termination bushings.

Part Number: **E/Term-CV**

Drawing Number: 164-20-01



E/SUBSTATION TERMINATION COVER

Technical data:

Silicone cover designed to protect various sizes of termination substrates. Allows for a quick on/off application.

Part Number: **E/STC**

Drawing Number: 284-00-01



E/FUSE CUTOUT COVER

Technical data:

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

Part Number: **E/FUSE CUT OUT CVR**

Drawing Number: 132-00-01



E/FUSE CUTOUT COVER LARGE

Technical data:

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

Part Number: **E/FUSE CUT OUT-LG ASSY**

Drawing Number: 260-10-01





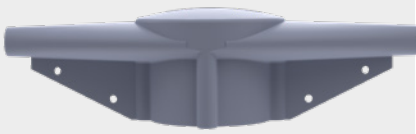
E/PIN INSULATOR COVER SMALL

Technical data:

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

Part Number: **E/PIN INS CV-SM**

Drawing Number: 126-00-02



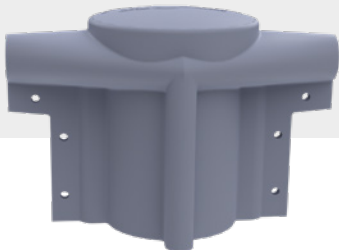
E/PIN INSULATOR COVER MEDIUM

Technical data:

Designed to protect against bird and animal contact on standard cross arm pin insulators.

Part Number: **E/PIN INS CV-MED**

Drawing Number: 126-00-03



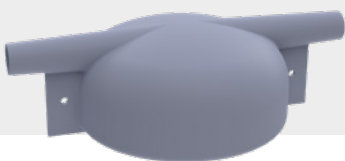
E/PIN INSULATOR COVER TALL

Technical data:

Designed to protect large crossarm pin insulators.

Part Number: **E/PIN INS CV-TALL**

Drawing Number: 126-00-04



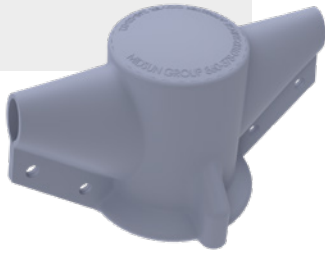
E/PIN INSULATOR COVER LARGE

Technical data:

Designed to protect against bird and animal contact on large cross arm pin insulators.

Part Number: **E/PIN INS CV-LG**

Drawing Number: 126-00-01



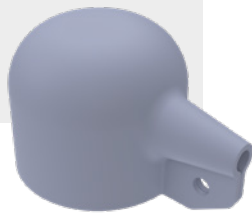
E/SURGE ARRESTOR COVER

Technical data:

Designed to fit taller lightning arrestors with a pass through lead or pole top bushings.

Part Number: **E/SRG-ARR-CVR**

Drawing Number: 268-00-02



E/POLE TOP LIGHTNING ARRESTOR CAP

Technical data:

Designed for pole top right angle lightning arrester.

Part Number: **E/PT-LA-CAP**

Drawing Number: 184-00-01



E/POLE LIGHTNING ARRESTOR RECLOSER COVER

Technical data:

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 Number: **E/PT-LA RECLSR-CVR**

Drawing Number: 262-00-02



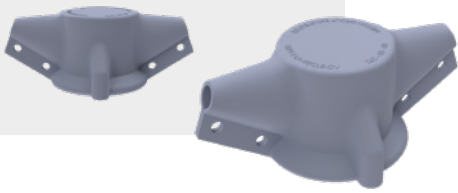
E/DOUBLE LEAD LIGHTNING ARRESTOR RECLOSER COVER

Technical data:

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

Part Number: **E/PT-DL-LA RECLSR CVR**

Drawing Number: 262-00-01



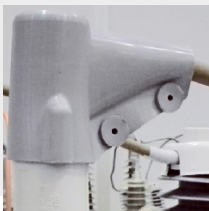
E/TRANSFORMER LIGHTNING ARRESTOR RECLOSER COVER

Technical data:

Designed to fit either pole top bushings or lightning arrestors with a pass through lead.

Part Number: **E/PT-T-LA RECLR CVR**

Drawing Number: 262-00-03



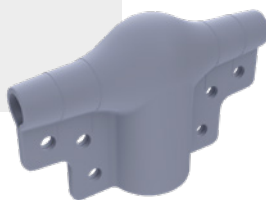
E/L SENSOR COVER

Technical data:

Designed for right angle recloser sensors.

Part Number: **E/L-SENSOR CV**

Drawing Number: 247-00-01



E/ RECLOSER VOLTAGE SENSOR COVER

Technical data:

T-shaped for use on recloser T-Sensors.

Part Number: **E/SRVSC**

Drawing Number: 103-00-01



NO HOLES



WITH HOLES

E/CAPACITOR COVER

Technical data:

Designed to protect energized portions of capacitor bushings.

Part Number: **E/PT-CAPACITOR-CV - NO HOLES**

Drawing Number: 227-00-01

Part Number: **E/PT-CAPACITOR-CV - WITH HOLES**

Drawing Number: 227-00-02



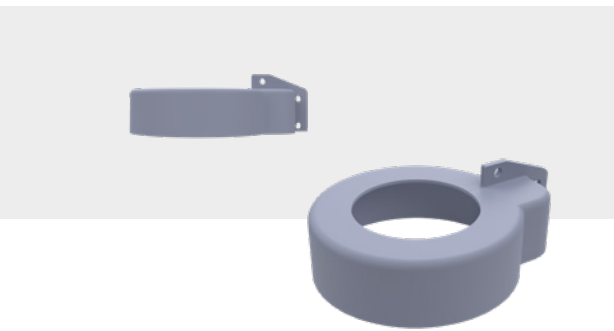
E/CAPACITOR CURRENT SENSOR COVER

Technical data:

Designed to insulate the bottom sensor of a Fisher Pierce current sensor.

Part Number: **E/CCS-CVR**

Drawing Number: 266-00-02



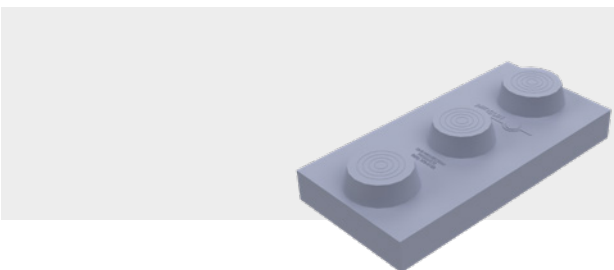
E/FPS* CURRENT SENSOR

Technical data:

Designed to insulate the bottom sensor of a *Fisher Pierce current sensor.

Part Number: **E/FPS-CVR**

Drawing Number: 222-00-01



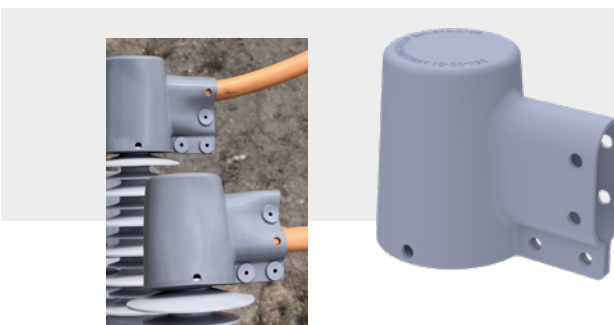
E/CAPACITOR COVER LARGE

Technical data:

Designed with three top ports sized to fit both one and two bushing capacitors.

Part Number: **E/CAP CVR LGE**

Drawing Number: 211-00-01



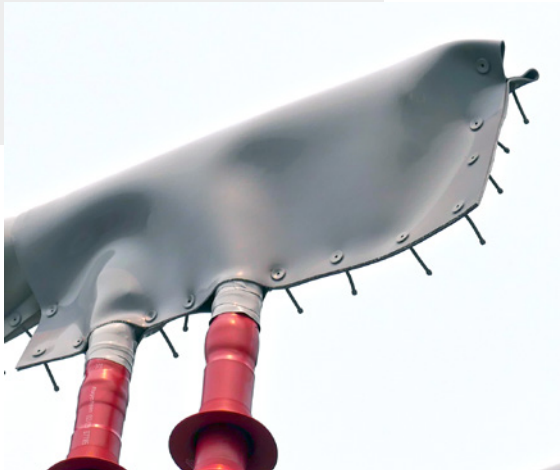
E/SECTOS SWITCH COVER

Technical data:

Switch cover developed for Schneider or ABB switch assemblies that can be used on distribution circuits.

Part Number: **E/SECTOS SWITCH COVER**

Drawing Number: 354-00-01



E/SILICONE SHEET

A high-temperature vulcanized custom compound silicone sheet with a polyester make fabric reinforcement with a thickness of 0.01in (2.5 mm) that allows you to custom cut covers. They offer up to 25 kV phase-to-ground insulation.

FEATURES:

- Hydrophobic
- Flexible & Customizable
- Easy to make covers for awkward or difficult shapes
- UV resistant
- Chemical resistant
- 20+ years of life expectancy

Part numbers and drawing numbers:

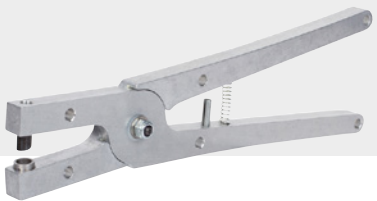
Part Number: **E/SS-24**

Size: 24 in x 120 in, 609.6 mm x 3048 mm

Part Number: **E/SS-30**

Size: 30 in x 120 in, 762 mm x 3048 mm

ACCESSORIES TO BE USED WITH E/SILICONE SHEET



E/HOLE PUNCH

Technical data:

The E/Hole Punch is a stainless steel, spring-loaded punch that can be used in conjunction with the E/Silicone Sheet. It is strong enough to make holes in the reinforced silicone sheet so a custom cover can be made.

Part Number: **E/Hole Punch**

Drawing #301-00-00



E/SILICONE PUSH PINS

Technical data:

These pins are used to secure Midsun molded covers. They are easy to install even while wearing insulated gloves, with a phase-to-Ground from up to 25 kV and their life expectancy matches the cover. Each bag contains 50 pins.

Part Number:

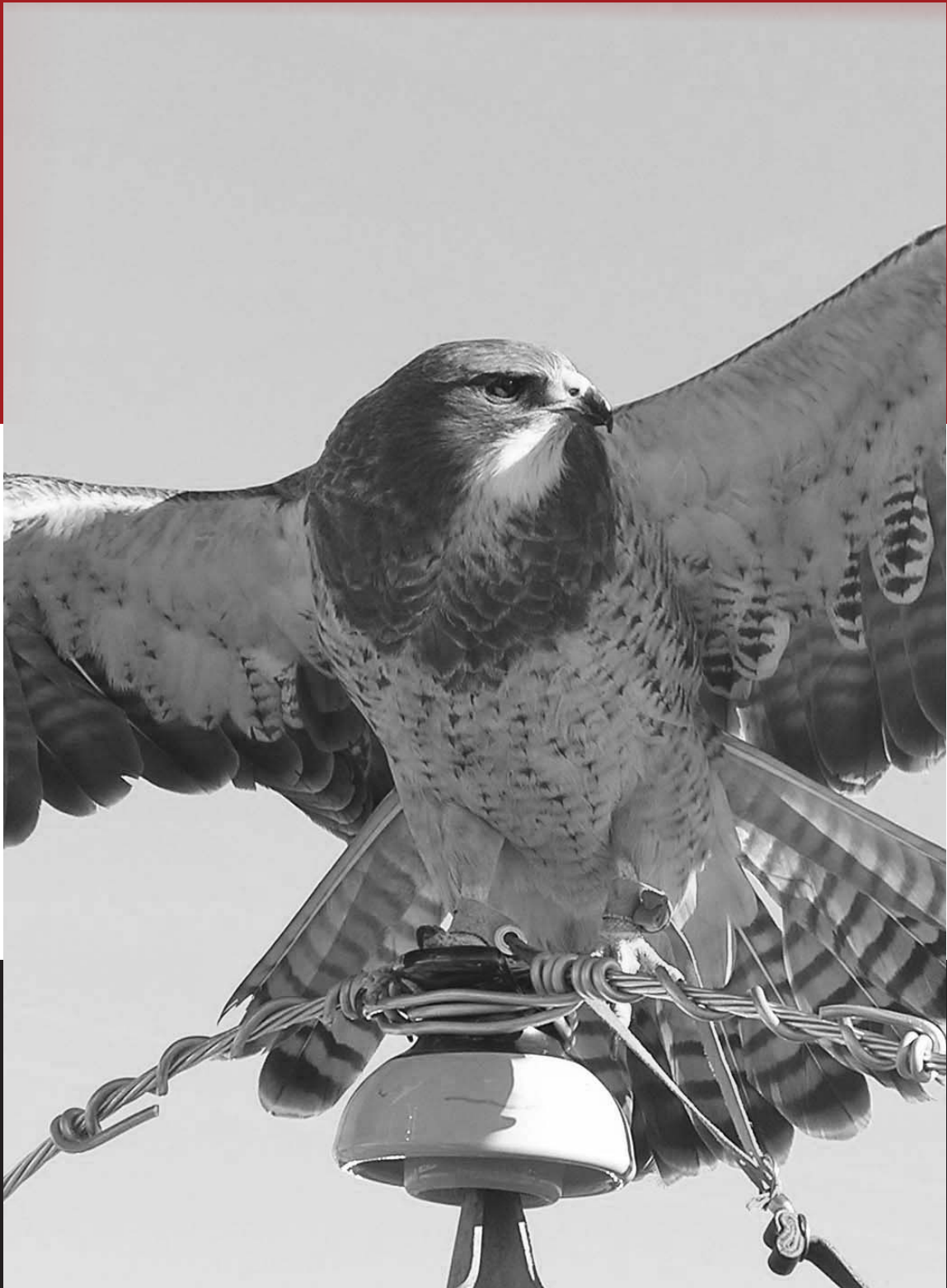
E/ Push Pin Single Wall, Gray

Drawing Number: 147-00-01G

Part Number:

E/ Push Pin Single Wall, Red

Drawing Number: 147-00-01R



E / Covers

E/ Barriers

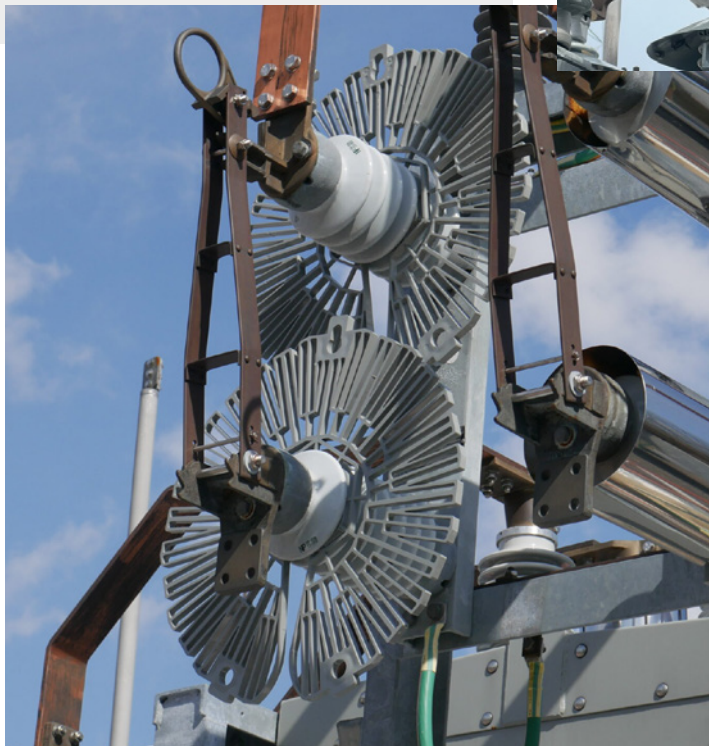
MEETS IEEE 1656 STANDARD

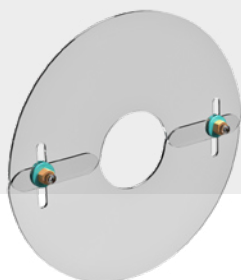
APPROVED FOR RURAL UTILITIES SERVICE

Midsun barriers are designed to block climbing and perching animals from making phase-to-ground contact with energized conductors and equipment. They are available in several diameters and can be removed and reused to suit your needs.

Features:

- High voltage puncture resistance
- Superior strength
- UV and weather resistance
- Adjusts to fit multiple insulator core diameters
- Can be custom made to specific requirements





E/BARRIER NO SLOTS

Technical data:

Standard Polycarbonate with a 20 in.,
508.0 mm diameter
E/Barriers W/O Slots

Part Number: **E/Bar Sets – No Slots**
Drawing Number: EBPC-2000-450-
125-3A



E/BARRIER SLOTTED

Technical data:

Standard Polycarbonate with a 20 in.,
508.0 mm diameter E/Barriers w/slots.

Part Number: **E/Bar Sets – Slots**
Drawing Number: EBSC-2000-450-125-3A



E/BIRD BARRIER

Technical data:

Standard Polycarbonate with a 20 in.,
508.0 mm diameter
E/Bird Barrier.

Part Number: **E/Bird Barrier 12" No Slots**
Drawing Number: EBPC-1200-350-125-3A

E/BARRIER - 24" NO SLOTS

Part Number: **E/BB-2350**
Drawing Number: EBPC-2350-525-187

E/ANTI-NESTING BARRIER

Technical data:

Designed with a 30° angle to
discourage or prevent bird nesting
and animal contact. It is approved for
energized application.

Part Number: **E-Anti-Nest-Bar 16-34**
Drawing Number: 299-00-01

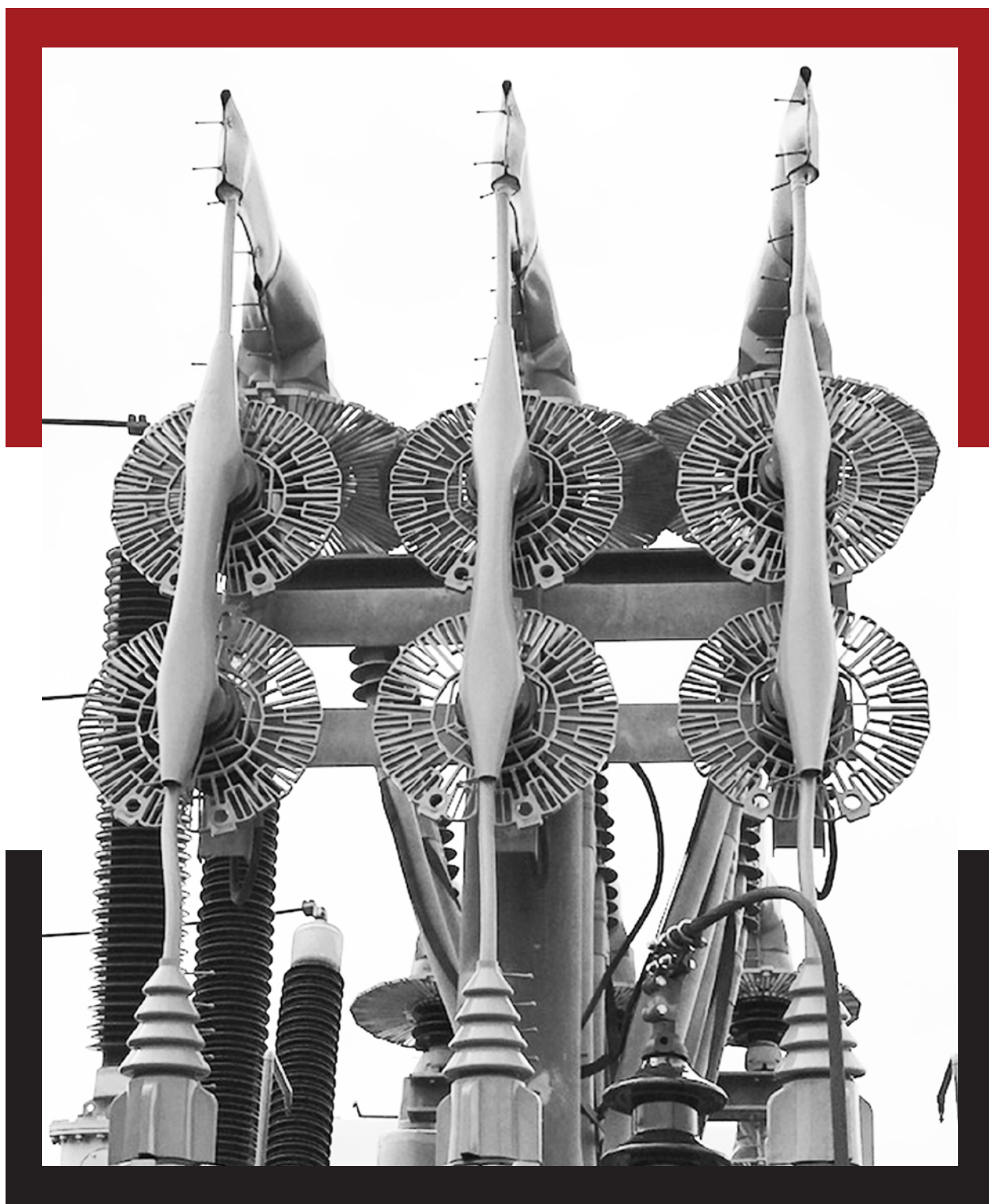
Part Number: **E-Anti-Nest-Bar 20-45**
Drawing Number: 299-20-45

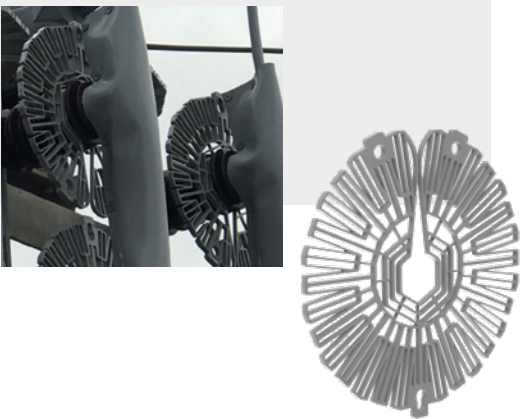


E/Anti-Nest-Bar 20 in.
(508 mm)



E/Anti-Nest-Bar 16 in.
(406.4 mm)





E/FLEX BARRIER

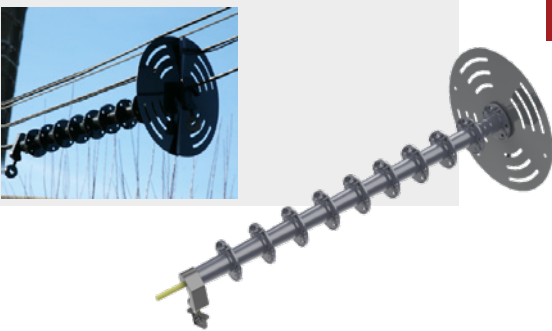
Technical data:

The design allows the barrier to easy on/ easy off application by sliding between adjacent skirts of an insulator and is then held securely in place.

It forms a long term barrier on substation equipment such as disconnects, switch insulators, arrester and bus support terminators, and insulators.

Part Numbers & Drawing Numbers

E/Flex Bar-G-16" (406.4 mm)	-	138-16-01
E/Flex Bar-G-20" (508 mm)	-	138-20-01
E/Flex Bar-G-24" (609.6 mm)	-	138-24-01
E/Flex Bar-R-16" (406.4 mm)	-	138-16-01
E/Flex Bar-R-20" (508 mm)	-	138-20-01
E/Flex Bar-R-24" (609.6 mm)	-	138-24-01



E/GETAWAY GUARD

Technical data:

Consists of 1 large disc assembly and 10 small collars. All discs allow for free rotation preventing climbing animals access through overhead power lines in open-air substations.

FEATURES:

- Can be installed de-energized or energized.
- UV, flame resistant, arc-resistant material.
- Withstands extreme environments.
- Long term protection.

Part Number: **E/GETAWAY GUARD**

Drawing Number: 101-00-00

Includes (1) large disc (Must assemble right and left half), 10 Small Collars, (6) Push in Plugs

E/ Accessories



E/SILICONE PUSH PINS

Technical data:

These pins are used to secure Midsun molded covers. They are easy to install even while wearing insulated gloves, with a phase-to-Ground from up to 25 kV and their life expectancy matches the cover. Each bag contains 50 pins.

Part Number: **E/Push Pin Single Wall, Gray**

Drawing Number: 147-00-01G

Part Number: **E/Push Pin Single, Wall Red**

Drawing Number: 147-00-01R



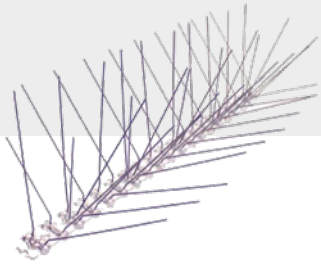
E/SILICONE TIE WRAP

Technical data:

Silicone tie wraps can replace temporary plastic tie wraps. Silicone ties offer a long life expectancy, a secure hold and an easy on/off application. Each bag contains 10 ties.

Part Numbers & Drawing Numbers

E/Silicone Tie Wrap-9-G	161-00-02	8.6 in
E/Silicone Tie Wrap-13-G	161-00-01	12.72 in
E/Silicone Tie Wrap-27-G	161-00-03	27 in



ANIMAL CONTROL STRIPS

Technical data:

These strips are a stainless steel mitigation barrier that prevents animals from climbing over substation fences and birds roosting on cross arms.

Features:

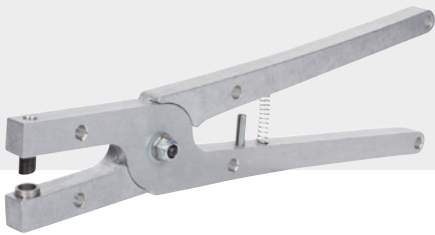
- Stainless Steel Construction – will not discolor other materials
- Versatile – conforms to any contour or surface
- Easy to install

Applications:

Substation perimeter fence protection, roofs, utility poles, ledges, columns, bus work, signs, roof ridges and more.

Part Number: **E/ACH-185**

Drawing #: 254-10-01



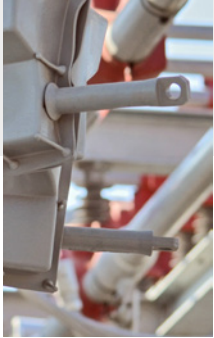
E/HOLE PUNCH

Technical data:

The E/Hole Punch is a stainless steel, spring-loaded punch that can be used in conjunction with the E/Silicone Sheet. It is strong enough to make holes in the reinforced silicone sheet so a custom cover can be made.

Part Number: **E/Hole Punch**

Drawing #301-00-00



E/GSC-SHORT



E/GSC-LONG



E/GSC-XLONG

■ E/GROUND STUD COVERS

Technical data:

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 Number: **E/GSC-LONG**

Drawing Number: 163-00-01

Part Number: **E/GSC-XLONG**

Drawing Number: 163-00-02

Part Number: **E/GSC-SHORT**

Drawing Number: 204-00-01

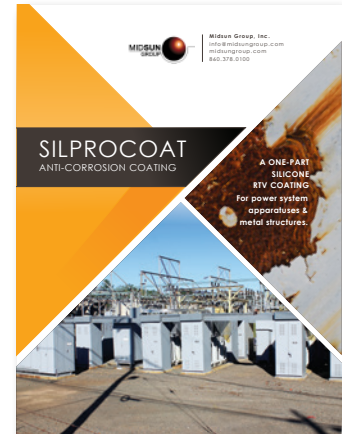


Silprocoat Anti-corrosive Coatings

Our anti-corrosion coatings are formulated with silicone rubber to restore metal structures and equipment on an advanced level. Silprocoat™ is a ready-to-use product that can be sprayed immediately after opening the pail and will last more than 10 years even in the most challenging environments.

Features:

- Extreme heat resistance 320°F (up to 160°C)
- Ideal solution to enclose lead paint
- Optimal corrosion protection i.e. power system equipment, metal hardware and structures, oil and gas storage tanks, pipes and metal barriers
- Strong adhesion
- Anti-aging, offering a long-term solution
- Available in VOC compliant formulations
- UV resistant



Visit midsungroup.com/silprocoat or scan QR to learn more



SILPROCOAT TECHNICAL DATA

Property	Value	Method
Appearance		Paint
Color	Gray/White	
Application Temperature range	0 to 120°F (-18° to 49°C)	
Application rate (10 mil thickness)	180ft ² /US gal	
Cure method	Oxime, moisture cure	
Skin-over time at standard conditions*	20 minutes	
Cure time standard conditions	4 hours	
Viscosity (at 25° C)	5000-6400 CPS	DIN EN ISO 3219
Tensile Strength (ASTM D412)	33kg/cm ² (480 PSI)	ASTM D150
Elongation at break (ASTM D412)	170%	ASTM D257
Tear resistance (ASTM D624, Die B)	6kN/m (34 ppi)	ASTM D150
Temperature stability range	-70° to 320°F (-57° to 160°C)	ASTM D459
Salt fog exposure (11350 hours)	No corrosion	CEA LWIWG-0
Accelerated Weathering, 5000 hours (G154 Series)	No degradation	IEC 61190, 5000 hours
Storage and temperature	2 Years < 77°F (25°C)*	

* Properties cured at standard weather conditions for 7 days.

* Standard conditions are 77°F (25°C) and 50% relative humidity.

These figures are only intended as a guide and should not be used in preparing specifications.

Anticorrosive

SELECTION GUIDE

All of our Silprocoat products have a single component one-part room temperature vulcanizing (RTV) polysiloxane elastomer coating and are available in different colors.

- Midsun Silprocoat Solventless VOC
No solvent is added.
- Midsun Silprocoat w/Mineral Spirits
Solvent: Mineral Spirits.

* Custom formulations and special tools required for energized applications, **contact Midsun for energized applications.**





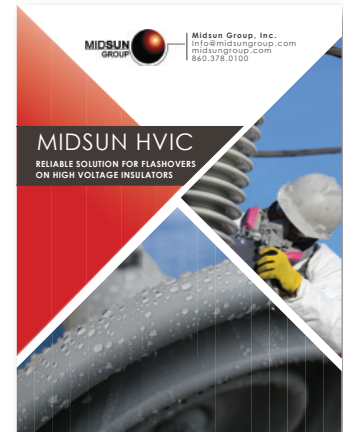
Anti-corrosive

High Voltage Insulator Coatings (HVIC)

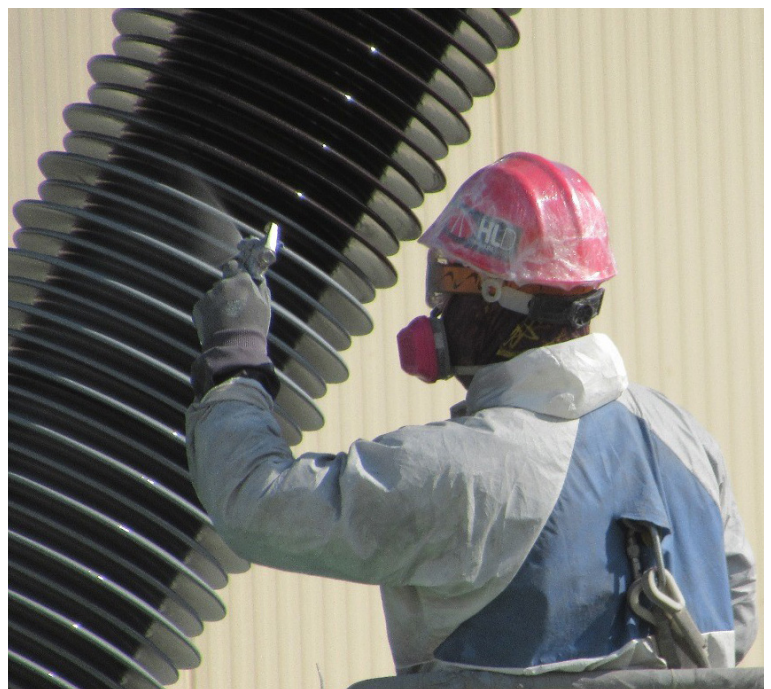
Salt spray, industrial pollutants and even desert sand can lead to costly power interruptions. Midsun High Voltage Insulator Coating (HVIC) provides a significantly maintenance-reduced protective layer in contaminated environments that can prevent excessive current leakage, tracking and flashovers on any type of high voltage insulator.

Features:

- Hydrophobic
- High resistance to arcing and corona
- Resistance to atmospheric and chemical degradation
- UV resistance
- Suppression of leakage current, discharges and pollution flashover
- Non toxic and environmental friendly material
- High resistance to air, airborne pollutants, rain, humidity, etc



Visit
midsungroup.com/midsun-hvic
or scan QR to learn more



HVIC TECHNICAL DATA

Properties uncured

Property	Value	Method
Appearance	Thick paint	
Viscosity, cP	2100-3300	
Cure System	Neutral, moisture cure (Cured At Standard Conditions* for 7 Days)	
Dielectric Strength, kV/mm, 0.375 mm (15th) thickness	27.1	ASTM D149
Volume Resistivity, ohm.cm	3.2×10^{13}	ASTM D257
Surface Resistivity, ohm/ square	4.2×10^{13}	ASTM D 257
Dissipation Factor	0.028 at 100 Hz 0.0057 at 100 kHz	ASTM D150
Dielectric Constant	3.57 at 100 Hz 3.36 at 100 kHz	ASTM D150
Tracking Wheel 1000 hour Withstand (CEA LWIWG-01)	Pass	
Dry Arc Resistance	Track: 200 s, Burnout: >420 s	ASTM D495
Temperature stability, degrees C (F)	-40° to 480°F (-40° to 250°C)	
Thermal Expansion Coefficient	250	
Loss Tangent at 100 Hz	0.028	ASTM D150
Water Repellency Angles, degrees	Static: 124 Advancing: 123 Receding: 105	IEC 62073
5000 hour UV & Salt Fog Accelerated Weathering	No degradation	IEC61109
Elongation at break	% 0.375 mm (15th) thickness	ASTM D 412
Tear strength	Die B, lb/in (kN/m), 0.375 mm (15th) thickness	ASTM D624
Inclined Plane Tracking & Erosion Test	1A 4.5; 1B 4.5	IEC 60587
Adhesion Testing, Water blast test	Pass	IEEE 957
Adhesion Testing, 100 h boiling water	Pass	CEA LWIWG-02

These figures are only intended as a guide and should not be used in preparing specifications.



HVIC ENERGIZED

Technical data:

Midsun HVIC modified to allow for energized applications.

Features:

- Reduces costly maintenance shutdowns
- Reduces unnecessary wear and tear to system backup units
- High resistance to extreme temperatures, salt and corrosive environments
- Not affected by UV light, corona discharge or chemical contaminants
- Reliance on peak loading generation
- Mitigate pollution caused outages



E/PAINTABLE INSULATION

Technical data:

This advanced silicone rubber formula provides high dielectric strength insulation as a paintable coating, offering protection against wildlife contact.

Features:

- High dielectric strength
- Easy to apply – one coat application
- Excellent atmospheric and chemical resistance



HVIC

OUR SERVICES

TURNKEY APPLICATION



Midsun field specialists are standing by and ready to implement any animal mitigation or coating product we provide into your new or existing system.



TRAINING & SUPERVISION



Midsun offers extensive professional training services to certify companies as official applicators of our products. If training is not required, we can also supervise the project.





CONSULTING



Our technical consultants can help you define and execute an implementation plan based on your specific requirements. These services include developing and implementing target operating / service models and optimizing application processes to reduce costs and improve productivity.



OUR EXPERTISE AREAS

- Operations and manufacturing
- Maintenance and reliability
- Engineering and product development
- Quality management

Our Services



FOLLOW US





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www.midsunikm.com



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