Mosdorfer ST Electrical Shielding Tape

Data Sheet

1.0 Product Description

Mosdorfer ST Electrical Shielding Tape is an all-metal, open-weave, shielding braid tape in a flat, cable-like form. It is conformable due to the open-weave knit construction of two No. 36 AWG tinned copper wires.

Features:

- Tinned copper conductors
- Stable at elevated temperatures
- Oil Resistant
- Compatible with power cable insulations
- Fire resistant
- Elongates easily to conform to inclined or uneven surfaces.
- Corrosion resistant
- Compatible with all high-voltage splicing and termination materials
- Unaffected by solvents, U.V., ozone, and moisture
- Because of its construction, the tape interlocks with the previous layer, thereby assuring a tighter wrap (no solder bead is required)
- The porosity of Mosdorfer ST Tape will permit complete resin saturation when splicing
- Usable for indoor and outdoor applications

2.0 Applications

- To provide shielding for cable joints on shielded power cables
- To make the conductive portion of the stress cone on power cable terminations
- To smooth connector area in oil-filled cables

3.0 Data

Physical Properties:

Test Method	Typical Value*
• Thickness (ASTM-D-1000-76)	0.016
• Breaking Strength (ASTM-D-1000-76)	22 lbs./in.
• Elongation (ASTM-D-1000-76)	70%
• Weather Resistance (Stretched and Unstretched)	Pass
Shelf Life	Indefinite

Electrical Properties:

Test Method	Typical Value*
• Electrical Resistance (ASTM D-1373-67)	Pass
• Wire Size	Two No. 36 AWG tinned copper wires

Chemical Properties:

Test Method	Typical Value*
• Ozone Resistant (ASTM D-1373-67)	Pass
• Water Absorption	Zero
• Resistance to Ultraviolet	Pass

* All values are averages, based on several determinations, and are not intended for specification purposes.

4.0 Specifications

Product
(Open Specification)

Conducting metal tape must be woven of No. 36 AWG tinned copper wire and be capable of operating at the emergency cable temperature of 130˚C/266˚F. It must be usable uncovered, indoors and outdoors, in a highly stretched condition without corroding, tearing or splitting. It must be nonflammable and be compatible with cable oils, common solvents, adhesives, and high-voltage splicing and terminating insulations.

Engineering/Architectural
(Closed Specification)

Jointing (splicing) and terminating shall be done according to the engineering print supplied by the manufacturer of the jointing or termination materials for the specific cable and approved by the specifying engineer.

Alternate - the jointing and terminating engineering drawing shall be compatible with the specific cable or cables and approved for the specific voltage of the cable.

5.0 Characteristics and Test Data

Tests were designed to determine how long a 12-inch specimen of Mosdorfer ST Tape would withstand a given amount of current before separating. A 20 gram weight was attached to the Mosdorfer ST Tape to ensure contact between the strands of the copper mesh. The test ended when Mosdorfer ST separated, due to the melting of the tinned copper wires. Figure 2 on the back page illustrates the results.

The data indicates that Mosdorfer ST Tape has excellent current carrying capacities for replacing the electrostatic shielding in high-voltage cables.

It should not be used as a ground strap or jumper wire because it will not carry the large fault currents and lightning currents that often appear in high voltage cables.

Figure 3 is representative of the method used for determining the resistance per foot of ST Tape. The 200-gram weight was used to insure contact between the interwoven No. 36 wires. The resistance is .92 ohms for 10 feet of ST Tape.

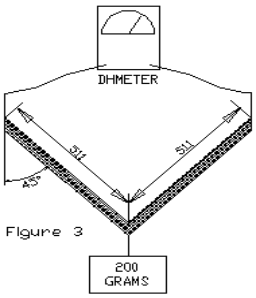

Figure 3

6.0 Installation Techniques

When constructing tape terminations and splices, overwrap area according to Mosdorfer CCL. prints with one half-lapped layer of ST Tape to continue electrostatic shielding.

When using resin-pressure methods, overwrap splice area with one quarter-lapped layer of Mosdorfer ST Tape. Mosdorfer ST Tape ends to cable metallic shielding.

Caution: Mosdorfer ST tape should not be used as a ground strap or jumper wire. It's ampacity is not great enough to carry large fault currents.

Note: A solder bead across ST Tape is not necessary to hold it in place.

Techniques for the proper use of this conductive tape are contained in standard and special prints available though the Mosdorfer CCL Systems for Splicing and Terminating program. They are available through your local Mosdorfer CCL Cable Accessories Product Division

7.0 Maintenance

(Shelf Life)

Mosdorfer ST Tape has an indefinite storage life. Because of its open-weave knit construction, ST Tape will not telescope while on the roll.

The tape can be checked for resistance with an ohm meter. Probes touching the surface one foot apart should measure .092 ohms or less. The tape is not impaired by freezing nor by over-heated conditions.

8.0 Availability

Mosdorfer ST tape is available in a variety of sizes including 1 inch x 100 foot (25mm x 30.5m) bulk roll, 1 inch x 15 foot (25mm x 4.6m) and 60mm x 6m rolls. Complete product and use specification are available through the Cable Accessories Product Division, Mosdorfer
CCL

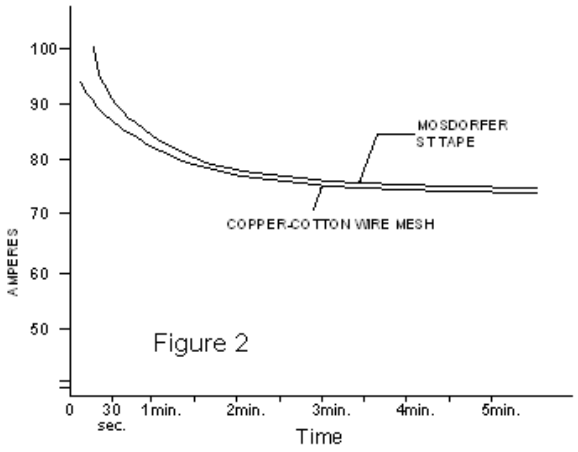

Figure 2

IMPORTANT NOTICE

Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use.

Warranty; Limited Remedy; Limited Liability. This product will be free from defects in material and manufacture as of the date of purchase. **Mosdorfer CCL MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective within the warranty period stated above, your exclusive remedy shall be, at Mosdorfer's option, to replace or repair the Mosdorfer CCL product or refund the purchase price of the Mosdorfer CCL product. **Except where prohibited by law, Mosdorfer CCL will not be liable for any loss or damage arising from this Mosdorfer CCL product, whether direct, indirect, special, incidental or consequential regardless of the legal theory asserted.**

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