

SHOCKTAPE™ LIGHTNING PROTECTION FOR WIND TURBINE BLADES



ShockTape[™] Covering Provides Wind Turbine Blades with Robust Protection Against Lightning Damage

Lightning damage to wind turbine blades causes millions of dollars in lost production and repairs each year. While the majority of wind turbine blades are designed and produced with a built-in lightning protection system (LPS), it's often not enough. Lightning Diversion Systems, a global leader in the design, development and production of lightning protection devices and related products for the military, aerospace and wind energy sectors, introduces ShockTape[™], an innovative laminate covering system that enhances a blade's existing LPS to provide more robust protection from lightning strikes. Designed and tested in state-of-the-art laboratories under the toughest conditions and standards, ShockTape[™] helps control a lightning strike by increasing the likelihood that the strike will occur at a desired location. When a strike occurs, the ShockTape[™] covering works in conjunction with the built-in LPS to provide a path to safely transfer the electrical current to ground, while also preventing any damage to the blade surface.

Key Features & Benefits

- Easy one day installation per turbine (3 blades per turbine).
- System can be tailored to a wide variety of blade models with any configuration of end cap with one or multiple arrestors.
- Easy "peel and stick" installation. No special tools required.
- Complete install kit supplied with instructions for quick & easy application.
- Patent pending laminate covering that captures and directs a lightning strike to a wind turbine blade's built-in LPS.
- Proven in a test environment to withstand the toughest of lightning strikes.
- Ongoing field trials continue to validate results from lab tests.

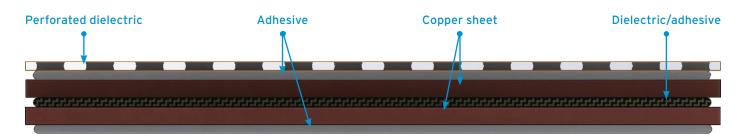




How it Works

Cross-Sectional View

ShockTape™ offers a multi-layer covering that captures lightning and directs it to a wind turbine's built-in lightning protection system.



- Each layer performs a critical function in the overall performance of the covering.
- The perforated dielectric surface layer of the ShockTape™ covering serves two purposes:
 - > First, it provides environmental protection to the copper, giving it structural strength and protection from the elements.
 - > Second, the perforated layer increases Arc Root Disbursement.
 - When lightning attaches to the strip, the lightning streamers are spread out among the perforated holes.
 - This effect spreads out the current density across the strip, preventing it from building up in one particular area.
 - This critical function allows the strip to be relatively thin while also being capable of enduring multiple strikes.

For inquiries & orders, contact Lightning Diversion Systems, or go to LightningDiversion.com
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ABOUT LIGHTNING DIVERSION SYSTEMS: Lightning Diversion Systems (LDS) is a global leader in the design, development and production of segmented lightning diverter strips, devices and products for the military, aerospace and wind energy sectors. In March 2020, LDS signed an exclusive licensing agreement with Wichita State University, allowing LDS to further develop and commercialize advanced lightning protection technology to offer wind turbine operators and OEMs better, more cost-effective protection against lightning strikes.



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