FREQUENTLY ASKED QUESTIONS

Let's answer them

HUBBELL®

GREENJACKET®

1. HOW DOES GREENJACKET PROVIDE PROTECTION FROM BIRD AND ANIMAL-CAUSED OUTAGES?

Precise-fit Greenjacket guards are made of a highly dielectric material. By ensuring energized and/or grounded electrical components are isolated from contact, faults can be avoided and outages prevented.

2. WHAT ARE THE COMPETITIVE ADVANTAGES OF GREENJACKET?

Advantages include:

- Greenjacket is a precise-fit solution
- Easily installed right out of the box with minimal (if any) modifications/adjustments needed.
- Site Assessments, which include data collection, are conducted by certified technicians while the system remains energized.
- Site Protection Plans provide comprehensive installation instructions specific to the solution developed
- On-site technical support is available when it comes time to install the product.

3. WHAT'S SO CRITICAL ABOUT THE FIT?

Guards that don't fit properly can't fully protect underlying equipment. Guards designed and customized to fit precisely ensure:

- There are no gaps where equipment remains exposed
- There are no open cavities that could promote nesting, hoarding, or colonization
- Easy removal and reinstallation
- They are able to withstand various operating conditions (wind, vibration, temperature fluctuations, etc...)
- No additional mechanical stress or wear is introduced to the underlying equipment

4. WHY WOULD A FEW GAPS OR HOLES MATTER?

Where there's a gap in coverage, there's a risk for contact. All it may take to cause a fault is an inquisitive bird or animal to come within proximity of an exposed area. Holes and gaps also invite insects, small birds and rodents to make their homes or to store their food in covers. As a result, larger predators are drawn to the electrical equipment and the risk for contact becomes even more likely.

5. WHAT IS GREENJACKET MADE OF?

Greenjacket guards are made of an extremely durable and dielectric polyurethane material.

6. WHY ARE YOUR GUARDS GREEN?

Green was chosen initially because it appealed aesthetically to our customers.

7. HOW DO GREENJACKET GUARDS AFFECT OUR ABILITY TO IR SCAN BOLTED CONNECTIONS?

Hotspot detection using infrared thermography requires careful attention be given to indirect readings when guards are in place. This includes accounting for environment conditions such as ambient temperature, what surfaces are exposed to the sun, wind, etc.... For more detail and techniques refer to our whitepaper on the topic.

8. DOES INSTALLING GREENJACKET GUARDS AFFECT THE CURRENT-CARRYING CAPACITY [AMPACITY] OF CONDUCTORS?

**Also referred to as derating of guards*

Test results indicate that installing Greenjacket guards does not reduce the current-carrying capacity of conductors.

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9. CAN YOUR GUARDS BE INSTALLED ON ENERGIZED EQUIPMENT?

Yes, but there are the following conditions to keep in mind:

- The feasibility of an energized installation can only be determined by our technicians during the Site Assessment.
- Only possible for guards that can be installed using accepted live-line methods in accordance with the safety standards of the Operating Authority and all applicable codes and standards of the regulatory agency.
- Some equipment configurations do not allow for safe access and therefore cannot be considered for energized installation
- Some Greenjacket guards may not accommodate certain live-line work methods because of their geometry or design.

10. WHAT ARE THE THERMAL CHARACTERISTICS OF THE GREENJACKET MATERIAL?

Maximum recommended service temperature for continuous use is 125°C (260°F). Melting point of 205°C (400°F).

11. HOW ARE GROUNDS INSTALLED ONCE COVER-UP HAS BEEN APPLIED?

Grounds are installed in the same way as they would be typically. Prior to a Greenjacket installation, grounding locations are identified by the installer (per the requirements of the Operating Authority) and cover-up is applied accordingly.

12. DOES GREENJACKET COVER-UP AFFECT THE TEMPERATURE RISE OF THE EQUIPMENT TO WHICH IT IS APPLIED?

Greenjacket meets specific test criteria of the IEEE 1656-2010 Guide.

Test results are available upon request..

13. WHAT TEST RESULT HAVE BEEN ACHIEVED BY GREENJACKET?

Greenjacket meets specific test criteria of the IEEE 1656-2010 Guide for Testing the Electrical, Mechanical, and Durability Performance of Wildlife Protective Devices on Overhead Power Distribution Systems Rated up to 38kV.

Test results are available upon request.

14. HOW ARE GREENJACKET GUARDS MAINTAINED OVER THEIR LIFE CYCLE?

Very little maintenance is required other than periodic inspection for Greenjacket guards.

- Greenjacket guards can be removed and reinstalled on equipment that requires regular inspection and maintenance. Before removing a cover, note its position and orientation relative to the underlying equipment and any corresponding or coupled parts. It's important that guards be reinstalled in the same way that they were intended to fit. Taking an image of the cover prior to removal can be useful in verifying the correct fit. A simple mistake such as reinstalling a cover over several insulator flights can significantly diminish the insulator's BIL rating.
- Sometimes drainage hole locations can't be predicted until guards are installed onto equipment. Drainage holes should be field drilled on the lowest point of covers, where most appropriate, at the time of installation.
- Greenjacket push fasteners can only be used once and need to be cut to be removed. Extra push fasteners are provided with every order and more can be obtained from Greenjacket as needed.
- Tracking caused by contamination places severe electrical stress on the surface of installed cover-up which can result in a flashover. When contaminated insulators/ equipment require washing, Greenjacket guards should also be inspected and cleaned in the same fashion. Careful attention should be taken to ensure guards are not dislodged while being cleaned and that their original intended position is maintained.
- Greenjacket guards should never be reinstalled on damaged or malfunctioning equipment.

Test results are available upon request.

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15. IS THERE A RISK TO APPLYING OVERSIZED GREYEEL?

There are a few factors to consider when deciding to use the incorrect size of GreyEEL:

- The weight of oversized GreyEEL could cause smaller diameter conductors to bend or deform when configured without tension. #4 copper exiting a pole-top transformer bushing, for instance.
- The added weight could also introduce unnecessary mechanical stress to components.
- Oversized GreyEEL will not have the advantage of friction to maintain it's intended position.

16. CAN GREENJACKET PROTECT EQUIPMENT AT HIGHER VOLTAGES THAN 38KV?

Yes, Greenjacket installations have proven to be effective for 44kV and 72kV systems. Special consideration is given when designing Greenjacket for higher voltage applications. This includes increasing the typical air separation to fully isolate components at different potentials.

17. DOES YOUR PRODUCT WARRANTY COVER GREENJACKET INSTALLED ON HIGHER VOLTAGES?

Yes, the limited warranty extends to Greenjacket designed for and applied to components up to 72kV system voltage. Greenjacket is warranted free from material defects and workmanship for a period of one year from date of delivery.

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