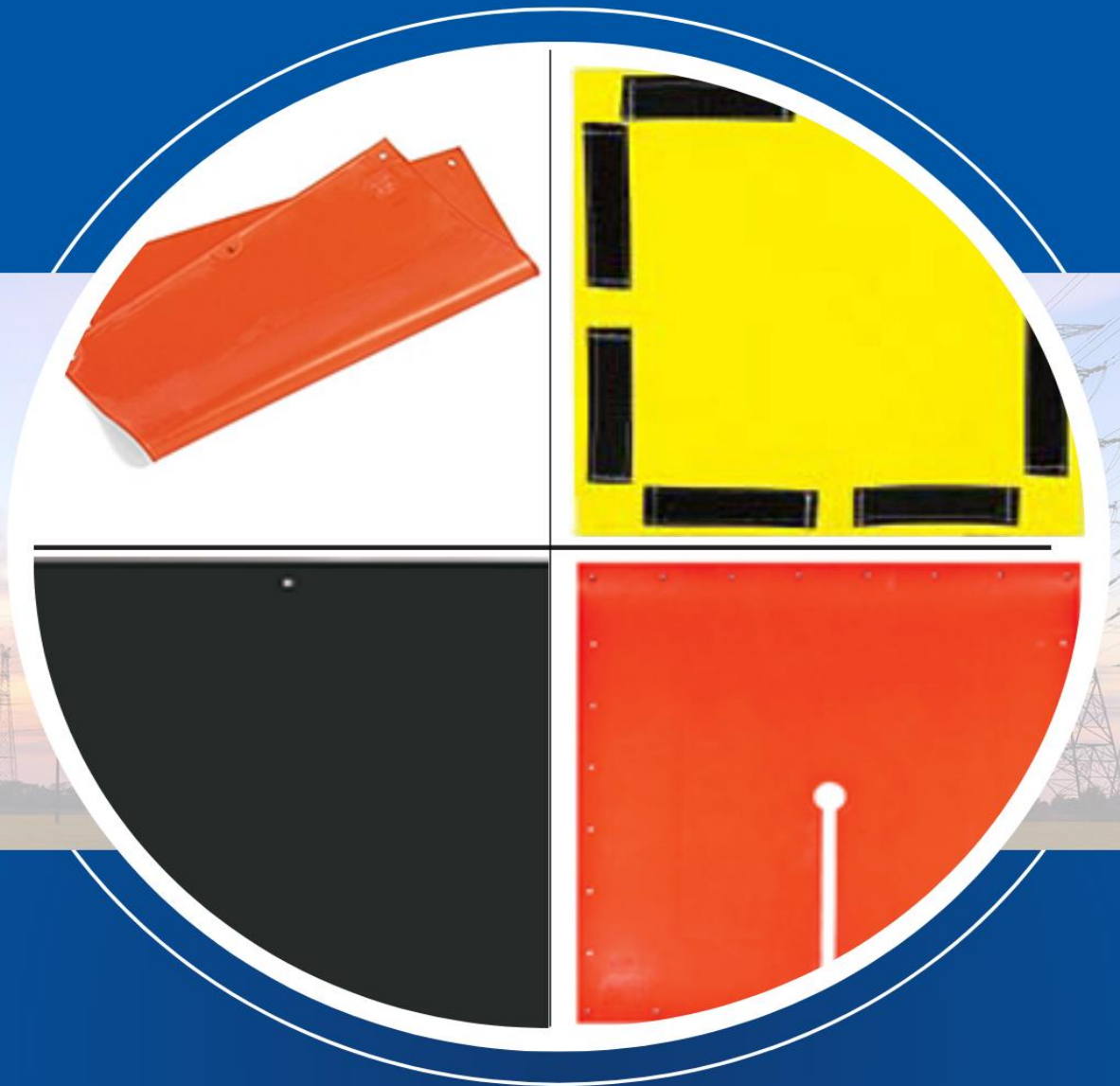


DIELECTRIC TESTING PROCESS

Electrical Safety Blankets



Burlington Safety Laboratory has been testing protective equipment since 1971. We are accredited by NAIL for PET, and our test procedures meet or exceed ASTM/ANSI, MIL Specs, NFPA 70E, FED and CAL OSHA standards. Our quality control procedures include thorough and accurate records of each and every article tested, along with dates and test values. Burlington Safety Laboratory's technicians are fully trained before they perform critical tests on your personal protective equipment.



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Dielectric Testing Process for Electrical Safety Blankets

Burlington Safety Laboratory has a short 2 week turnaround upon receiving electrical safety blankets for laboratory testing to ASTM standards. Customers can either ship their gloves to us or drop them off at our facility for testing. Upon receiving, our testing process consists of:

1. Washing

Insulating blankets undergo a laundering process in compliance with ASTM Standards to ensure adherence to safety regulations. Utilizing an industrial cruise line washing machine ensures thorough cleaning, effectively eliminating all traces of streaks, stains, dirt, dust, oils, and other contaminants that may compromise the insulation properties of the blankets. Additionally, this cleaning process removes any stamps and markings from previous test certifications, providing a clean surface for subsequent testing procedures.



Figure 1 - Industrial Cruise Line Washing Machine

2. Drying

Following the washing phase, the electrically insulated blankets undergo a thorough drying process to ensure they are completely dry before proceeding to dielectric testing. This step ensures that the blankets are free from moisture, allowing for accurate testing of their insulation properties.



Figure 2 - Industrial Drying Machines

3. Dielectric Testing

Utilizing our advanced safety equipment testing machines, the electrically insulated blankets undergo dielectric testing. As mandated, blankets are required to undergo testing every 12 months to ensure compliance with safety standards. These machines assess the blanket's dielectric integrity by applying appropriate voltage through two metal plates placed on each side of the blanket. Our versatile machines are capable of testing blankets across all classes and

sizes, providing comprehensive coverage for various requirements. Any detected dielectric failures are automatically identified by the machine, and appropriate actions are taken, including discarding, marking and returning, or replacing the blankets according to the customer's preferences.



Figure 3 - Dielectric Testing of Blankets

4. Visual

Following the dielectric testing, each electrically insulated blanket undergoes a detailed visual inspection conducted by our skilled technicians. This inspection involves examining the blanket for any signs of defects or damage, both internally and externally. Our technicians meticulously check for age cracking, cuts, depressions, embedded material, form marks, hard spots, mold marks, nicks, snags, scratches, ozone damage, and tears. This thorough visual inspection ensures that any potential issues are promptly identified and addressed, maintaining the quality and safety of the blankets.



Figure 4 - Visual Inspection of Blankets

5. Stamp

Upon completion of testing, each electrically insulated blanket is stamped with a unique identifying serial number. The stamp includes crucial information such as the proof test voltage, maximum use voltage, and the date of testing completion. This identification stamping enhances traceability and ensures that pertinent information is readily accessible for each blanket, facilitating effective monitoring of testing history and compliance with safety standards.



Figure 5 - Stamp

6. Canister

Following identification stamping, the electrically insulated blankets are rolled and stored in specially designed plastic canisters. This packaging solution not only ensures the protection of the blankets during transportation but also facilitates ease of handling. The canisters provide a secure and organized storage option, maintaining the integrity of the blankets until they are ready for use.



Figure 6 - Electrical Safety Blanket Canister

7. Ship or Pickup

The canisters containing the electrically insulated blankets are then either dispatched to the customer via UPS for delivery or made available for customer pickup, based on their preference. This ensures efficient delivery of the tested blankets to the designated recipients, facilitating their prompt integration into their operations.



Figure 7 - Shipping or Pickup



Testing Specifications

Rubber Insulating Equipment	ASTM Designation
Rubber Insulating Gloves 2.5 – 40kV, Class 00 – Class 4	D120 / F496
Rubber Insulating Sleeves 5 – 40kV, Class 00 – Class 4	D1051 / F496
Rubber Insulating Footwear 5 – 20kV Overshoes & Boots	F1116/F1117
Rubber Insulating Blankets 5 – 40kV, Class 0 – Class 4	D1048/F479
Rubber Insulating Line Equipment Line Hose, Hoods, Covers, etc.	D1050/F478

Jumpers/Grounds	ASTM Designation
Hotline Jumpers Insulation & Voltage Drop Test	F2321
Ground Sets and Leads Voltage Drop Test	F855

Line Guards	ASTM Designation
Plastic Line Guards	F712

Hot Line Tools	ASTM Designation
All Hot Sticks Switch/straight, telescopic, and Grip-All sticks	F711



Voltage Detectors & Meters	
Voltage Detectors (Manufacturer's Functional Test)	
Meters (Manufacturer's Functional Test) Calibration Services Available	

Testing Intervals

Equipment	Testing Interval
Gloves	Every 6 months
Sleeves	Every 12 months
Blankets	Every 12 months
Line Hose	Every 12 months
Boots	Every 6 months
Grounds	Every 12 months
Fiberglass Tools	Every 2 years

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