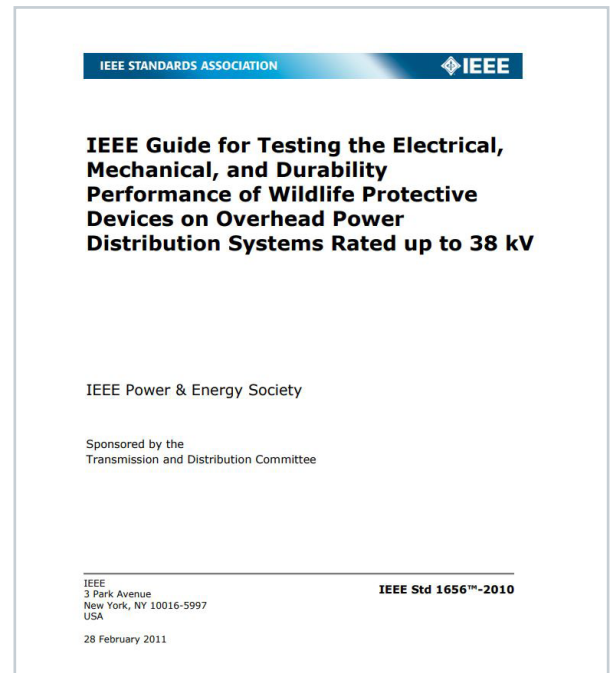


IEEE 1656-2010 Testing Parameters

Reliaguard® manufactures guards to prevent power outages caused by animal and bird contacts on energized equipment. Formed from Reliatanium™, Reliaguard's proprietary dielectric material, guards are specially designed to protect both common and unique equipment configurations. Reliatanium is formulated to meet specific test criteria of the IEEE Standard 1656™-2010.

The IEEE Guide 1656™-2010 is:

- The Approved Guide for Testing the Electrical, Mechanical and Durability Performance of Wildlife Protective Devices on Overhead Power Distribution Systems Rated up to 38kV.
- Recognized by the electrical industry as the most comprehensive guideline to date for testing wildlife protective devices on overhead power distribution systems.



Reliatanium Testing Includes:



Flammability Testing



Wet Power Frequency
Flashover



Ultraviolet Aging



Wet Withstand



Tracking and Erosion
Resistance

When a flashover or contact occurs, cover-up that doesn't support combustion is important for limiting damage to critical equipment and infrastructure. Reliaguard's Reliatanium material used in its parts production has achieved a V-0 flammability rating, the highest flammability rating, which means it does not support combustion.

RELIATANIAM WAS FORMULATED TO MEET THE SPECIFIC TESTING GUIDELINES OUTLINED IN THE IEEE 1656-2010 GUIDE. THE PRODUCT MATERIAL ADDRESSES SUCH CONCERNS AS UV STABILITY AND FLAME RETARDANCY AND HAS BEEN TESTED TO A 38KV RATING.

Reliatanium™ Material Description:

Reliatanium™ is a proprietary material developed by Reliaguard® Inc. which is formulated specifically for bird and animal mitigation products used in high voltage power systems.

Reliatanium was formulated to meet the specific testing guidelines outlined in the IEEE 1656™- 2010 Guide. The product material addresses such concerns as UV stability and Flame Retardancy and has been tested to a 38kV rating.

Reliatanium Material Performance Testing:

Performance Test #	Test Standards	Details	Test Results
Flammability	UL-94	Vertical Flame Test Test plaques self-extinguishing with no drips	V-0
Ultraviolet Aging	IEEE std 1656™ - 2010 Section 5.6	After completing 1000 hours, no perceived changes to the condition of test samples.	Completed
Tracking and Erosion Resistance	IEC 60587	6 hrs (Full duration of test)	Achieved @ 2KV
Wet Power Frequency Flashover	IEEE Std 1656™- 2010 Section 5.3	Average flashover value of all samples greater than 90% of the value obtained on the test fixture alone	Passed
Wet Withstand	IEEE Std 1656™- 2010 Section 5.2.1	Option 1 - moving Electrode All Samples did not puncture or flash over	Passed
Tensile Strength at Break	ASTM D638		2,000 psi
Shore Durometer	ASTM D2240		65 Shore D
Heat Deflection	ASTM D648		225°F 66 psi

Properties*	Unit	Test Method	Value
Flexural Strength	psi	ASTM D790	5,200
Flexural Modulus	psi	ASTM D790	297,500
Tensile Strength @ break	psi	ASTM D638	2,000
Tensile Strength @ yield	psi	ASTM D638	2,900
Flammability	psi	UL-94	V-0
UV Stability	hrs.	ASTM D4329	1,000

*All tests were conducted in accordance with specified test methods. Reliaguard assumes no liability whatsoever in respect of application, processing, or use made of the aforementioned information or product, or for any infringement of the rights owned or controlled by a third party in intellectual, industrial, or other property by reason of the application, processing or use of the aforementioned information or product by the buyer. Data presented above represent typical properties and are in no way to be construed as guaranteed properties or specifications.