

KEYGUARD® by KEYSTONE STATIC DATA & MVTR DATA

Static Decay

Static decay testing is currently specified for both military and commercial static safe materials. The test is based upon Federal Test Method Standard (FTM) 101C, Method 4046, "Electrostatic Properties of Materials." Applicable specifications which utilize this method include: Mil-B-81705C, Mil-C-85043A, Mil-C-83429B, Method 5931, EIA-541, NFPA 99 and many others. Other static decay or "charge decay" tests utilize different methods such as corona or turboelectric charging. These results are not interchangeable with Method 4046. Most military and electronic industry specifications require the decay time to be measured to the 1% (50 Volt) cutoff level. Applications referenced to NFPA (National Fire Protection Association) specifications require the decay time to be measured to the 10% (500 Volt) cutoff level. Static decay testing per CECC 00015/I is a European Standard that specifies a material be charged to 1kV and the time for the material to dissipate this charge to the 50 Volt level be measured. The standard does not specify the test apparatus, and thus, different test results may be obtained with different test set-ups.

The rate of moisture vapor diffusion through the fabric is determined according to the Simple Dish Method, similar to ASTM E96-80. A sample is placed on a water dish (82 mm in diameter and 19 mm in depth) allowing a 9 mm air space between the water surface and specimen. A vibration free turntable carrying 8 dishes rotates uniformly at 5 meters per minute to insure that all dishes are exposed to the same average ambient conditions during the test. The assembled specimen dishes are allowed to stabilize for two hours before taking the initial weight. They are weighed again after a 24 hour interval. Then the rate of moisture vapor loss (MVTR) is calculated in units of g/m^2 -24 hours. **A higher MVTR value indicates there is a greater passage of moisture vapor through the material.**

In summary - the Keyguard is antistatic and has a higher MVTR value than Tyvek or other competitors fabric.