

Calculating the correct test voltage for your spark (holiday) tester



How does it work?

The holiday detector needs to be adjusted to pass the correct level of current depending on the thickness of the coating. Where the coating has a defect and the circuit is completed, the detector will activate an audible and visual alarm.

Calculation of Test Voltage For high voltage spark test Holiday Detectors

$$\text{Test Voltage (V)} = \frac{250 \times \sqrt{\text{Dry Film Thickness}^*}}{\text{Coating Factor (C)}}$$

Notes: Dry Film Thickness Value

- use the work specification thickness
- use the actual thickness if it is more than 25% above the work specification
- use DFT in Microns (Mils x 25.4).

Coating Factor	Coating Type
1 Ultra Hi-Builds	80%+ volume solids, e.g. Fusion bonded Epoxy, Solventless Epoxy Polyester - Vinyl Ester
2 Hi-Builds	60%-79% volume solids, e.g. Highbuild epoxy, Coal Tar Epoxy
3 Medium Builds	40%-59% volume solids, e.g. Medium epoxies
4 Low-Builds	15%-39% volume solids, e.g. Vinyl coating, Chlorinated Rubber

* in Microns

Call Blast-One today for more information on voltage detectors