

## DIELECTRIC BREAKDOWN

Test Sample Identification: #610 Ceramic Coating  
 Test Procedures: ASTM D149; Method A  
 Test Method Variation(s): None  
 Test Performed by: H. Dang

Test Date: 2015/01/27

### TEST PARAMETER:

**Description of Test Samples:** Ceramic Coating on 304 Stainless Steel  
**Pre-test Conditioning:** Minimum of 40 hours at 23±2°C and 50±10%RH  
**Test Environment:** 23°C – 54%RH  
**Surrounding Medium:** Air  
**Test Temperature:** Ambient Lab Conditions  
**Electrodes Diameter:** ¼" Type 3  
**Method of Voltage Application:** Short-Term Test  
**Rate of Rise:** 500 V/s  
**Date of Test:** 2015-01-27

### TEST RESULTS:

Sample ID: #610 Ceramic Coating

Job Number: 1501-177

Thick-ness (mm)	Breakdown Voltage (kV) & Location	Breakdown Strength (kV/mm)	Equipment
1	0.179      3.8      (1)	21.2	Micrometer: #329
2	0.059      2.3      (1)	39.0	Dielectric Tester: #078
3	0.143      3.2      (1)	22.4	Electrode Diameter: ¼" - Type 3
4	0.159      3.8      (1)	23.9	Test Medium: Diala Oil AX
5	0.185      3.4      (1)	18.4	Ramp Rate: 500 V/s
Average		3.3	
Std. Dev.		0.6	

<p><b>Comments Legend</b></p> <p>(1) Breakdown under electrode          (2) Breakdown along edge of electrode          (3) Breakdown outside Electrode Circumference          (4) Flashover. No breakdown at voltage indicated</p>	<p><b>Test Conditions:</b></p> <p>Temp: 23°C      Req.: (23±2°C)          Hum.: 54%RH      Req.: (50±10 %RH)          Eq #: 318/319</p>
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