

January 6, 2021

TEST REPORT

PN 157464
P.O. 318962

ARDL Engineering
Dielectric Strength Testing

Prepared For:

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Rev 110119



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ISO 9001-2015 Registered

ISO 9001:2015
Registered

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SUBJECT: Dielectric Strength Testing on one material.

RECEIVED: One red ASTM slab identified as 370CX 21249.

Decision Rule 1

DIELECTRIC STRENGTH TEST

Test Method: ASTM D 149-20, Method A, Short-Time Test.

Sample Preparation: Sample was wiped clean with acetone and conditioned for at least 40 hours at 23 °C and 50 % relative humidity.

Test Procedure: Place sample between 1 inch diameter electrodes (Type 2 of ASTM D 149). Apply an increasing AC voltage at a rate of 2,000 volts/sec to the electrodes until dielectric breakdown occurs. Record the peak voltage applied.

Test Conditions: The test was conducted in oil (Mobile Univolt) with room conditions of 72 °F (23 °C) and 49 % relative humidity.

Test Date: January 6, 2021.

Results:

Test	Thickness	Breakdown Voltage (kVAC)	Dielectric Strength
	mils		V/mil
1	75.6	33	437
2	66.9	32	478
3	69.7	31	445
4	84.6	36	425
5	73.6	30	407

Average	438
Standard Deviation	26

*ARDL is ISO 17025 accredited by A2LA for the test methods listed on the certificates referenced on page one. Unless specified, the current specification version is used.
 NOTE: Non-ISO 17025 accredited test methods are designated with the ^ symbol to differentiate from ISO 17025 accredited methods in the body of the test report.*

Decision Rules

Rule 1. This is the way test results have traditionally been reported by ARDL. If ARDL runs a test for you that has pass/fail requirements, ARDL will report the values observed and then state "Pass" or "Fail", based on those values only. By default, ARDL will apply this rule to all Category I tests and those tests which are not on ARDL's Scope of Accreditation.

Rule 2. This rule takes into account the calculated measurement uncertainty of test results generated. Every test and piece of test equipment has an inherent amount of measurement uncertainty associated with it. Rule 2 establishes "Guard Bands" where the measurement uncertainty value is added to the Minimum Passing requirement and is subtracted from the Maximum Passing requirement. The Pass/Fail requirements thus become tighter and customers may be more "Certain" of their Pass/Fail result.

Rule 3. This rule also takes into account measurement uncertainty but does not set up guard bands. Rule 3 may be used when values are reported, but there is no Pass/Fail requirement called out in the test specification. Rule 3 simply states that the measurement uncertainty is reported to the customer, along with the testing result generated, and the customer decides if the results are suitable for their purposes.

Report Revision Log

<u>Date</u>	<u>Report Revision</u>	<u>Description</u>
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New

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