



ASTM D149 & D3755

Project ID: opp_0027043

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Samples Received:

Sample Received	5 Samples received
Test 1 (ASTM D149)	5 points of AC test on each
Test 2 (ASTM D3755)	5 points of DC test on each



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Instrument Set-up



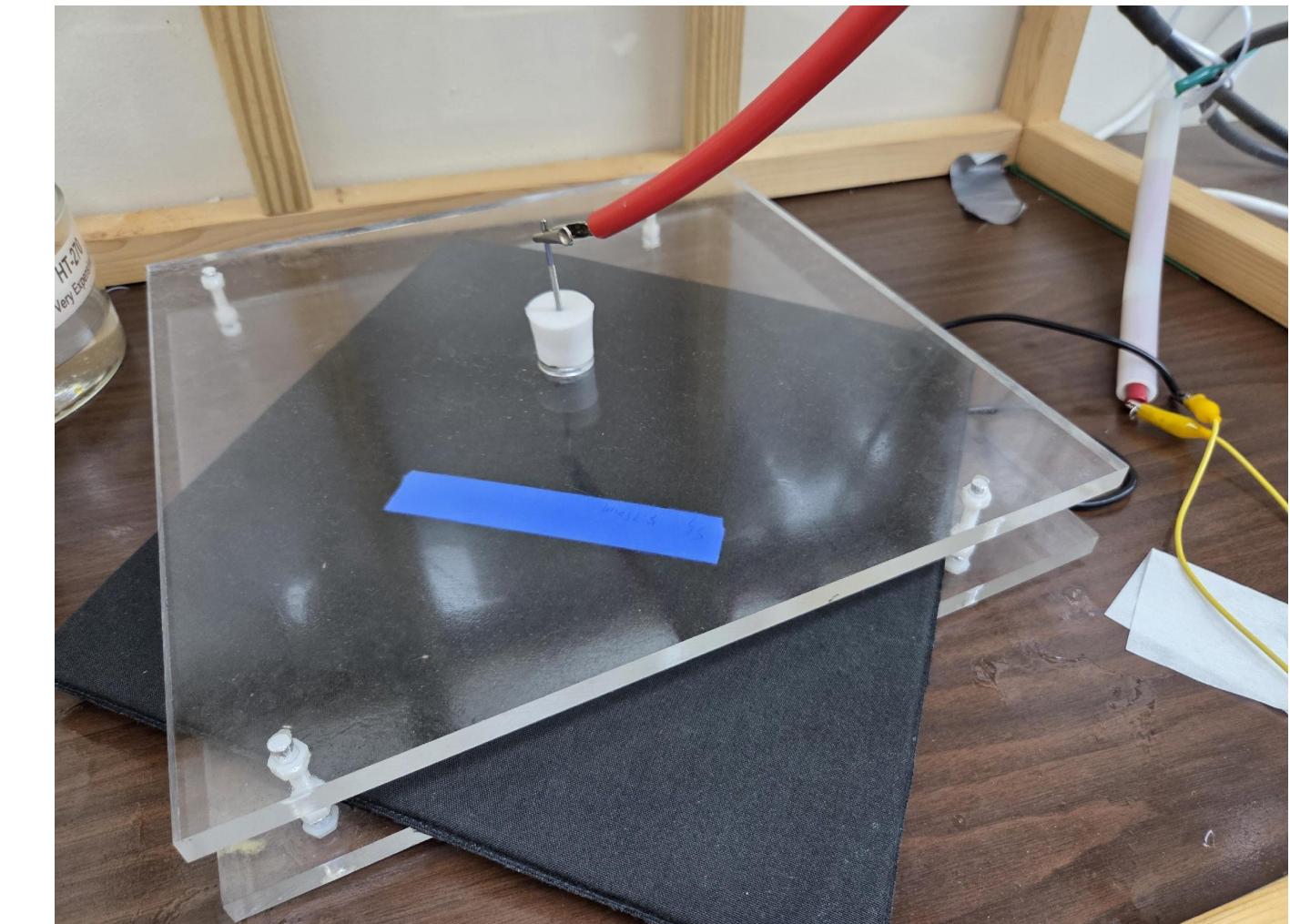
- Power Supply: 120 kv AC
- Ac Voltage Ramp Rate: 500V/second
- Top and bottom electrode: Opposing cylindrical rods 6.4 mm (0.25 in.) in diameter with edges rounded to 0.8 mm (0.0313 in.) radius
- Ambient Temperature: ~21.5 C and 58% relative humidity

Instrument Set-up

Standard Test Method for Dielectric Breakdown Voltage and Dielectric Strength of Solid Electrical Insulating Materials at Commercial Power Frequencies



- Power Supply: Spellman SL1200, 120kV 10 mA
- Voltage Ramp: 500 V/second.
- In silicone dielectric fluid
- Top and bottom electrode: Opposing cylindrical rods 6.4 mm (0.25 in.) in diameter with edges rounded to 0.8 mm (0.0313 in.) radius
- Ambient Temperature: ~24.3 C and 49% relative humidity



Sample on the test fixture inside a high voltage safety cage

Test Results (ASTM D149 & D3755)

Sample #	Total Thickness (mm)	AC Breakdown Voltage (V)	Dielectric Strength (kV/mm)
1	6	9570	1.6
	6	10110	1.7
	6	10080	1.7
	6	9100	1.5
	6	8720	1.5
2	6.5	9560	1.5
	6.5	13380	2.1
	6.5	11150	1.7
	6.5	11020	1.7
	6.5	8510	1.3
3	6.1	11640	1.9
	6.1	12860	2.1
	6.1	11940	2
	6.1	13740	2.3
	6.1	10050	1.6
4	6	8280	1.4
	6	10000	1.7
	6	9090	1.5
	6	8970	1.5
	6	9090	1.5
5	5.75	9870	1.7
	5.75	10050	1.7
	5.75	9220	1.6
	5.75	8670	1.5
	5.75	8330	1.4

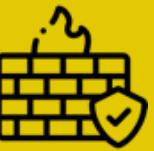
Sample #	Total Thickness (mm)	DC Breakdown Voltage (V)	Dielectric Strength (kV/mm)
1	6	16598	2.8
	6	16759	2.8
	6	22959	3.8
	6	21704	3.6
	6	18473	3.1
2	6.5	21832	3.4
	6.5	20570	3.2
	6.5	22528	3.5
	6.5	15729	2.4
	6.5	20068	3.1
3	6.1	17325	2.8
	6.1	17776	2.9
	6.1	18922	3.1
	6.1	20570	3.4
	6.1	20519	3.4
4	6	14029	2.3
	6	14583	2.4
	6	19218	3.2
	6	19019	3.2
	6	18475	3.1
5	5.75	16250	2.8
	5.75	16501	2.9
	5.75	19251	3.3
	5.75	22367	3.9
	5.75	19817	3.4

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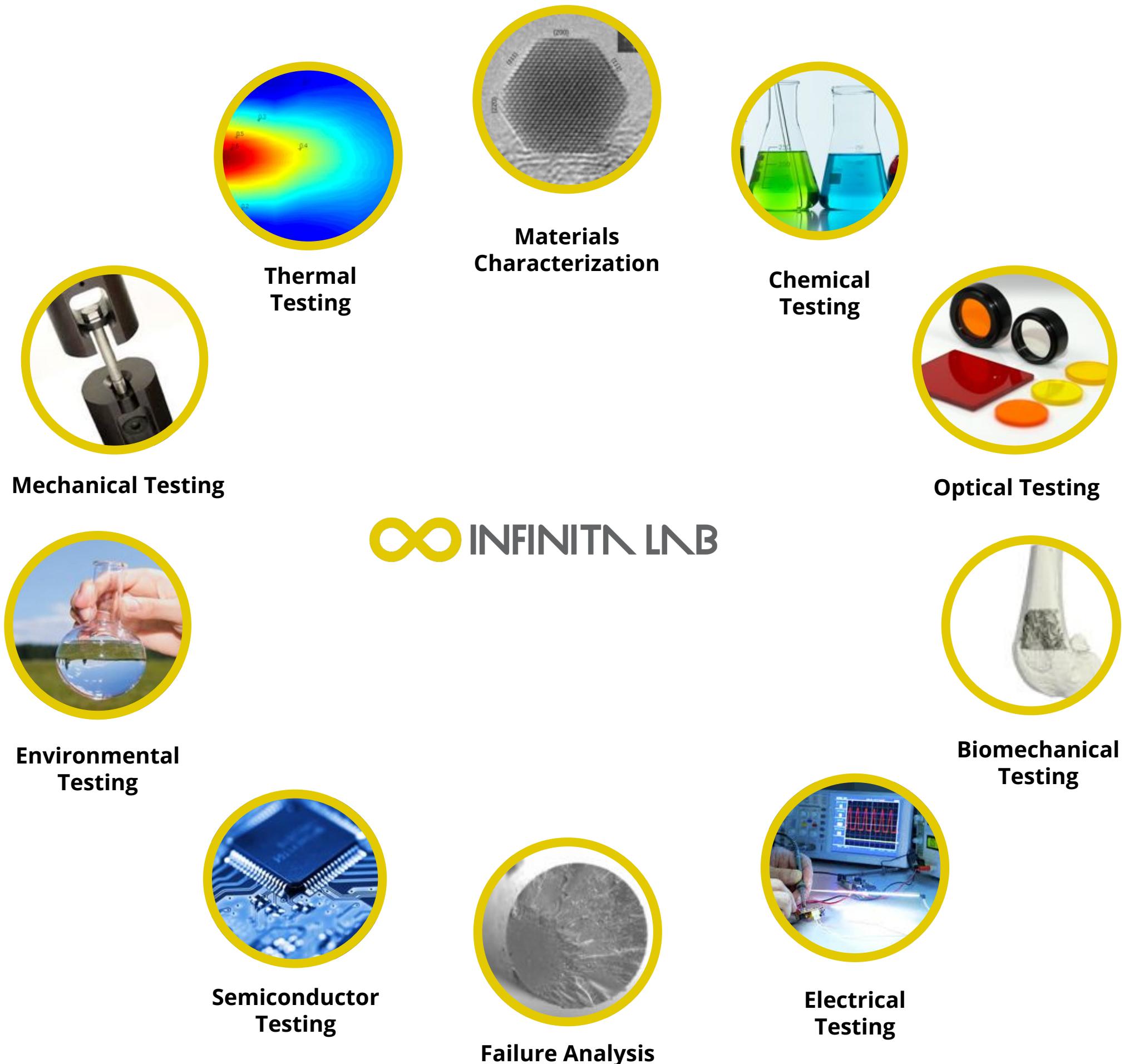


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