Cerakote - 45˚ Flammability Test

We submitted samples of each of our series (H Series, C Series, Elite Series, V and MC Series) of Cerakote coatings to Aeroblaze Laboratory, Inc., a third-party testing facility that specializes in aerospace flammability testing.

The testing parameters and results are as follows:

Test Conducted:

45˚Flammability Test (which meets the 14 CFR 25.853(a) at Amendment 25-116; Appendix F, Part 1(b)(6)

- **Testing Parameters:**
  - Ignition Temperature: 1,550˚ F
  - Ignition Duration: 30 seconds
  - Substrate: 6061 Aluminum
- **Cerakote Coatings Tested:**
  - H-146 Graphite Black
  - C-102 Graphite Black
  - E-100 Blackout
  - V-166 Cobra Black
  - MC-156 High Gloss Clear
- **Results:**
  - All coatings tested **PASSED** the Federal Standard.

+1 (817) 668-0628
info@aeroblazelab.com
www.aeroblazelab.com

Aeroblaze Laboratory Inc.
12819 Harmon Rd. Bldg 575
Fort Worth, TX 76177 USA

Report # 2742.1

45° Flammability Test Results

14 CFR 25.853(a) at Amdt. 25-116; Appendix F, Part I(b)(6)

Customer Information	Sample Information
NIC Industries Inc 7050 6th Street White City, OR 97503	H-146 H-series; 6061 Alum Sheet .032 with Coating (1 mil)

Conditioning: 24 hours minimum at 70 ± 5 °F and 50 ± 5 %RH.	Flame Temp: 1,550 °F minimum

Sample	Ignition Time (sec)	Flame Penetration	Flame Time (sec)	Glow Time (sec)
1	30.0	No	0.0	0.0
2	30.0	No	0.0	0.0
3	30.0	No	0.0	0.0
		Average:	0.0	0.0
		Result:	PASS	PASS

Acceptance Criteria:
Flame Time Average: 15.0 seconds maximum Glow Time Average: 10.0 seconds maximum The flame must not penetrate the sample.

Result	
[X] PASS	[ ] FAIL

Notes:

Flame had no effect on the samples. Coating did not show any indication of the flame's application post-test.

Tested by: Gregory Thomas 18-Mar-21
Lab Technician

Approval: Andrew Feghali 18-Mar-21
Andrew Feghali, Lab Manager, FAA DER

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Report # 2742.2

45° Flammability Test Results

14 CFR 25.853(a) at Amdt. 25-116; Appendix F, Part I(b)(6)

Customer Information	Sample Information
NIC Industries Inc 7050 6th Street White City, OR 97503	E-100 E-series; 6061 Alum Sheet .032 with Coating (1 mil)

Conditioning: 24 hours minimum at 70 ± 5 °F and 50 ± 5 %RH.	Flame Temp: 1,550 °F minimum

Sample	Ignition Time (sec)	Flame Penetration	Flame Time (sec)	Glow Time (sec)
1	30.0	No	0.0	0.0
2	30.0	No	0.0	0.0
3	30.0	No	0.0	0.0
		Average:	0.0	0.0
		Result:	PASS	PASS

Acceptance Criteria:
Flame Time Average: 15.0 seconds maximum Glow Time Average: 10.0 seconds maximum The flame must not penetrate the sample.

Result	
[X] PASS	[ ] FAIL

Notes:

Flame had no effect on the samples. Coating did not show any indication of the flame's application post-test.

Tested by: Gregory Thomas 18-Mar-21
Lab Technician

Approval: Andrew Feghali 18-Mar-21
Andrew Feghali, Lab Manager, FAA DER

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Report # 2742.3

45° Flammability Test Results

14 CFR 25.853(a) at Amdt. 25-116; Appendix F, Part I(b)(6)

Customer Information	Sample Information
NIC Industries Inc 7050 6th Street White City, OR 97503	C-102 C-series; 6061 Alum Sheet .032 with Coating (1 mil)

Conditioning: 24 hours minimum at 70 ± 5 °F and 50 ± 5 %RH.	Flame Temp: 1,550 °F minimum

Sample	Ignition Time (sec)	Flame Penetration	Flame Time (sec)	Glow Time (sec)
1	30.0	No	0.0	0.0
2	30.0	No	0.0	0.0
3	30.0	No	0.0	0.0
		Average:	0.0	0.0
		Result:	PASS	PASS

Acceptance Criteria:	Result
Flame Time Average: 15.0 seconds maximum Glow Time Average: 10.0 seconds maximum The flame must not penetrate the sample.	[X] PASS [ ] FAIL

Notes:

Flame had no effect on the samples. Coating left very faint indication of the flame's application post-test.

Tested by: Gregory Thomas 18-Mar-21
Lab Technician

Approval: Andrew Feghali 18-Mar-21
Andrew Feghali, Lab Manager, FAA DER

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Report # 2742.4

45° Flammability Test Results

14 CFR 25.853(a) at Amdt. 25-116; Appendix F, Part I(b)(6)

Customer Information	Sample Information
NIC Industries Inc 7050 6th Street White City, OR 97503	MC-156 MC-series; 6061 Alum Sheet .032 with Coating (1 mil)

Conditioning: 24 hours minimum at 70 ± 5 °F and 50 ± 5 %RH.	Flame Temp: 1,550 °F minimum

Sample	Ignition Time (sec)	Flame Penetration	Flame Time (sec)	Glow Time (sec)
1	30.0	No	0.0	0.0
2	30.0	No	0.0	0.0
3	30.0	No	0.0	0.0
		Average:	0.0	0.0
		Result:	PASS	PASS

Acceptance Criteria:

Flame Time Average: 15.0 seconds maximum
Glow Time Average: 10.0 seconds maximum
The flame must not penetrate the sample.

Result

[X] PASS [ ] FAIL

Notes:

Flame had no effect on the samples. Coating did not show any indication of the flame's application post-test.

Tested by: Gregory Thomas 18-Mar-21
Lab Technician

Approval: Andrew Feghali 18-Mar-21
Andrew Feghali, Lab Manager, FAA DER

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Report # 2742.5

45° Flammability Test Results

14 CFR 25.853(a) at Amdt. 25-116; Appendix F, Part I(b)(6)

Customer Information	Sample Information
NIC Industries Inc 7050 6th Street White City, OR 97503	V-166 V-series; 6061 Alum Sheet .032 with Coating (1 mil)

Conditioning: 24 hours minimum at 70 ± 5 °F and 50 ± 5 %RH.	Flame Temp: 1,550 °F minimum

Sample	Ignition Time (sec)	Flame Penetration	Flame Time (sec)	Glow Time (sec)
1	30.0	No	0.0	0.0
2	30.0	No	0.0	0.0
3	30.0	No	0.0	0.0
		Average:	0.0	0.0
		Result:	PASS	PASS

Acceptance Criteria:
Flame Time Average: 15.0 seconds maximum Glow Time Average: 10.0 seconds maximum The flame must not penetrate the sample.

Result	
[X] PASS	[ ] FAIL

Notes:

Flame had no effect on the samples. Coating left very faint indication of the flame's application post-test.

Tested by: Gregory Thomas 18-Mar-21
Lab Technician

Approval: Andrew Feghali 18-Mar-21
Andrew Feghali, Lab Manager, FAA DER