

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)

o Testing Parameters:

Ignition Temperature: 1,550° F
 Ignition Duration: 30 seconds
 Substrate: 6061 Aluminum

o Cerakote Coatings Tested:

- H-146 Graphite Black
- C-102 Graphite Black
- E-100 Blackout
- V-166 Cobra Black
- MC-156 High Gloss Clear

o Results:

All coatings tested PASSED the Federal Standard.



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

NIC Industries Inc 7050 6th Street White City, OR 97503

Sample Information

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: | 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 did not sho | w any indication of the flame's application post-test. |
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NOTE TO INSPECTORS: THIS BURN CERTIFICATE MAY NOT BE SUFFICIENT TO MEET REGULATORY REQUIREMENTS. INDIVIDUAL MATERIALS MUST BE TESTED IN COMPOSITE BUILDUPS BY THE INSTALLER. SOME TESTS MAY ALSO REQUIRE FAA APPROVAL. CONTACT US FOR ASSISTANCE WITH YOUR SPECIFIC SITUATION.

Tested by: Gregory Thomas

18-Mar-21

Approval: Andrew 18-Mar-21

Lab Technician Andrew Feghali, Lab Manager, FAA DER



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

Report # 2742.2

45° Flammability Test Results

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

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NIC Industries Inc 7050 6th Street White City, OR 97503

Sample Information

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: | 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 did not sl | now any indication of the flame's application post-test. |
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Approval:

Tested by: Gregory Thomas

18-Mar-21

Money Fellow 18-Mar-21

Lab Technician

Andrew Feghali, Lab Manager, FAA DER



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

Report # 2742.3

45° Flammability Test Results

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

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NIC Industries Inc 7050 6th Street White City, OR 97503

| Sample | Information |
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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 f | aint indication of the flame's application post-test. |
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NOTE TO INSPECTORS: THIS BURN CERTIFICATE MAY NOT BE SUFFICIENT TO MEET REGULATORY REQUIREMENTS. INDIVIDUAL MATERIALS MUST BE TESTED IN COMPOSITE BUILDUPS BY THE INSTALLER. SOME TESTS MAY ALSO REQUIRE FAA APPROVAL. CONTACT US FOR ASSISTANCE WITH YOUR SPECIFIC SITUATION.

Approval:

Tested by: Gregory Thomas

Lab Technician

18-Mar-21

Andrew Feghali, Lab Manager, FAA DER

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

Report # 2742.4

45° Flammability Test Results

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

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NIC Industries Inc 7050 6th Street White City, OR 97503

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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: | 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 offect on the camples. Coating did not she | w any indication of the flame's application post-test. | | |
| Fiame had no effect on the samples. Coating did not sho | , | | |

NOTE TO INSPECTORS: THIS BURN CERTIFICATE MAY NOT BE SUFFICIENT TO MEET REGULATORY REQUIREMENTS. INDIVIDUAL MATERIALS MUST BE TESTED IN COMPOSITE BUILDUPS BY THE INSTALLER. SOME TESTS MAY ALSO REQUIRE FAA APPROVAL. CONTACT US FOR ASSISTANCE WITH YOUR SPECIFIC SITUATION.

Approval:

Tested by: Gregory Thomas

18-Mar-21

18-Mar-21

Lab Technician

Andrew Feghali, Lab Manager, FAA DER



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

Report # 2742.5

45° Flammability Test Results

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

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NIC Industries Inc 7050 6th Street White City, OR 97503

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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: | 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 fa | aint indication of the flame's application post-test. |
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RESULTS RELATE ONLY TO THE ITEMS AS RECEIVED AND TESTED. THIS REPORT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT WRITTEN APPROVAL. NOTE TO INSPECTORS: THIS BURN CERTIFICATE MAY NOT BE SUFFICIENT TO MEET REGULATORY REQUIREMENTS. INDIVIDUAL MATERIALS MUST BE TESTED IN COMPOSITE BUILDUPS BY THE INSTALLER. SOME TESTS MAY ALSO REQUIRE FAA APPROVAL. CONTACT US FOR ASSISTANCE WITH YOUR SPECIFIC SITUATION.

Approval:

Tested by: Gregory Thomas

18-Mar-21

Money Tell Mar 18-Mar-21

Lab Technician

Andrew Feghali, Lab Manager, FAA DER