

## **Cerakote – Toxicity (Flaming Mode) 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:**

### **Toxicity (Flaming Mode) Test Results (which meets Boeing BSS 7239, Revision A)**

- o **Testing Parameters:**
  - Exposure to heat and/or flame: 4 minutes
  - 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 Boeing Standard.

## Toxicity (Flaming Mode) Test Results

Boeing BSS 7239, Revision A

### Customer Information

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

### Sample Notes

H-146  
 H-series; 6061 Alum Sheet .032 with Coating (1 mil)

Gas	Limit (ppm) at 4 min	Sample 1			Sample 2			Sample 3		
		Value	Method	Result	Value	Method	Result	Value	Method	Result
HCN	150	< 1	DT	PASS	< 1	DT	PASS	-	-	-
CO	3500	39	GF	PASS	45	GF	PASS	-	-	-
NO/NO <sup>2</sup>	100	2	GF	PASS	3	GF	PASS	-	-	-
SO <sup>2</sup>	100	< 1	GF	PASS	< 1	GF	PASS	-	-	-
HF	200	* < 1	DT	PASS	< 1	DT	PASS	-	-	-
HCL	500	5	DT	PASS	5	DT	PASS	-	-	-

DT = Dräger Tubes | PO = Potentiometry | GF = Gas Flue Analysis (Testo 350)

IND. = Indeterminate. Test values exceed maximum limits of Dräger Tube

\*Positive = Indicative test; HF is detected

### Results

**PASS**

**Notes:** Tested at partner laboratory.

**FAIL**

RESULTS RELATE ONLY TO THE ITEMS AS RECEIVED AND TESTED. THIS REPORT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT WRITTEN APPROVAL.

**Tested by:** Scott Van Wormer

18-Mar-21

**Approval:**

*Andrew Feghali*  
 Andrew Feghali, Lab Manager, FAA DER

18-Mar-21

## Toxicity (Flaming Mode) Test Results

Boeing BSS 7239, Revision A

### Customer Information

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

### Sample Notes

E-100  
 E-series; 6061 Alum Sheet .032 with Coating (1 mil)

Gas	Limit (ppm) at 4 min	Sample 1			Sample 2			Sample 3		
		Value	Method	Result	Value	Method	Result	Value	Method	Result
HCN	150	< 1	DT	PASS	< 1	DT	PASS	-	-	-
CO	3500	18	GF	PASS	15	GF	PASS	-	-	-
NO/NO <sup>2</sup>	100	1	GF	PASS	2	GF	PASS	-	-	-
SO <sup>2</sup>	100	0	GF	PASS	0	GF	PASS	-	-	-
HF	200	* < 1	DT	PASS	< 1	DT	PASS	-	-	-
HCL	500	10	DT	PASS	10	DT	PASS	-	-	-

DT = Dräger Tubes | PO = Potentiometry | GF = Gas Flue Analysis (Testo 350)

IND. = Indeterminate. Test values exceed maximum limits of Dräger Tube

\*Positive = Indicative test; HF is detected

### Results

**PASS**

**Notes:** Tested at partner laboratory.

**FAIL**

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**Tested by:** Scott Van Wormer

18-Mar-21

**Approval:**

*Andrew Feghali*  
 Andrew Feghali, Lab Manager, FAA DER

18-Mar-21

## Toxicity (Flaming Mode) Test Results

Boeing BSS 7239, Revision A

### Customer Information

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

### Sample Notes

C-102  
 C-series; 6061 Alum Sheet .032 with Coating (1 mil)

Gas	Limit (ppm) at 4 min	Sample 1			Sample 2			Sample 3		
		Value	Method	Result	Value	Method	Result	Value	Method	Result
HCN	150	< 1	DT	PASS	< 1	DT	PASS	-	-	-
CO	3500	15	GF	PASS	21	GF	PASS	-	-	-
NO/NO <sup>2</sup>	100	1	GF	PASS	2	GF	PASS	-	-	-
SO <sup>2</sup>	100	0	GF	PASS	0	GF	PASS	-	-	-
HF	200	* < 1	DT	PASS	< 1	DT	PASS	-	-	-
HCL	500	15	DT	PASS	15	DT	PASS	-	-	-

DT = Draeger Tubes | PO = Potentiometry | GF = Gas Flue Analysis (Testo 350)

IND. = Indeterminate. Test values exceed maximum limits of Draeger Tube

\*Positive = Indicative test; HF is detected

### Results

**PASS**

**Notes:** Tested at partner laboratory.

**FAIL**

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**Tested by:** Scott Van Wormer

18-Mar-21

**Approval:**

*Andrew Feghali*  
 Andrew Feghali, Lab Manager, FAA DER

18-Mar-21

## Toxicity (Flaming Mode) Test Results

Boeing BSS 7239, Revision A

### Customer Information

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

### Sample Notes

MC-156  
 MC-series; 6061 Alum Sheet .032 with Coating (1 mil)

Gas	Limit (ppm) at 4 min	Sample 1			Sample 2			Sample 3		
		Value	Method	Result	Value	Method	Result	Value	Method	Result
HCN	150	< 1	DT	PASS	< 1	DT	PASS	-	-	-
CO	3500	14	GF	PASS	19	GF	PASS	-	-	-
NO/NO <sup>2</sup>	100	1	GF	PASS	1	GF	PASS	-	-	-
SO <sup>2</sup>	100	0	GF	PASS	0	GF	PASS	-	-	-
HF	200	* < 1	DT	PASS	< 1	DT	PASS	-	-	-
HCL	500	15	DT	PASS	15	DT	PASS	-	-	-

DT = Dräger Tubes | PO = Potentiometry | GF = Gas Flue Analysis (Testo 350)

IND. = Indeterminate. Test values exceed maximum limits of Dräger Tube

\*Positive = Indicative test; HF is detected

### Results

PASS

**Notes:** Tested at partner laboratory.

FAIL

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**Tested by:** Scott Van Wormer

18-Mar-21

**Approval:**

*Andrew Feghali*  
 Andrew Feghali, Lab Manager, FAA DER

18-Mar-21

## Toxicity (Flaming Mode) Test Results

Boeing BSS 7239, Revision A

### Customer Information

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

### Sample Notes

V-166  
 V-series; 6061 Alum Sheet .032 with Coating (1 mil)

Gas	Limit (ppm) at 4 min	Sample 1			Sample 2			Sample 3		
		Value	Method	Result	Value	Method	Result	Value	Method	Result
HCN	150	< 1	DT	PASS	< 1	DT	PASS	-	-	-
CO	3500	18	GF	PASS	23	GF	PASS	-	-	-
NO/NO <sup>2</sup>	100	2	GF	PASS	2	GF	PASS	-	-	-
SO <sup>2</sup>	100	0	GF	PASS	0	GF	PASS	-	-	-
HF	200	* < 1	DT	PASS	< 1	DT	PASS	-	-	-
HCL	500	15	DT	PASS	18	DT	PASS	-	-	-

DT = Dräger Tubes | PO = Potentiometry | GF = Gas Flue Analysis (Testo 350)

IND. = Indeterminate. Test values exceed maximum limits of Dräger Tube

\*Positive = Indicative test; HF is detected

### Results

**PASS**

**Notes:** Tested at partner laboratory.

**FAIL**

RESULTS RELATE ONLY TO THE ITEMS AS RECEIVED AND TESTED. THIS REPORT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT WRITTEN APPROVAL.

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