

**CLIENT: TRIGON MFG., INC.**  
625 S. Rockford Drive  
Tempe, AZ 85281  
Nate Elder

**Test Report No: 176541-1**

**Date: May 7, 2003**

**SAMPLE ID:** The Client submitted and identified the following test material as Gray Material coated .020" to .025" on 20 gauge galvanized steel.

**DATE OF RECEIPT:** Entered into SGS USTC sample tracking system on April 23, 2003 as STN 36335.

**TESTING PERIOD:** May 6, 2003.

**AUTHORIZATION:** Testing authorized by Nate Elder.

**TEST REQUESTED:** Smoke Density Tests per ASTM E662-01, "Standard Method for Specific Optical Density of Smoke Generated by Solid Materials". This test method is comparable to NFPA No. 258.

<b>TEST RESULTS:</b>	<b>Flaming Mode</b>	<b><u>Ds @ 1.5 min.</u></b>	<b><u>Ds @ 4 min.</u></b>	<b><u>Dm</u></b>	<b><u>Dm Corr.</u></b>
	Average	8	48	134	132
	<b>Non- Flaming Mode</b>	<b><u>Ds @ 1.5 min.</u></b>	<b><u>Ds @ 4 min.</u></b>	<b><u>Dm</u></b>	<b><u>Dm Corr.</u></b>
	Average	1	19	153	152

For detailed results see page 2.

**Tested by**

Brian Ortega  
Test Technician

**Signed for and on behalf of  
SGS U.S. Testing Company Inc.**

Greg Banasky  
Supervisor Fire Technology

Page 1 of 2

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**TEST PROCEDURE:** The individual specimens were dried for 24 hours at  $140 \pm 5^\circ$  F and then conditioned to equilibrium at a temperature of  $73 \pm 5^\circ$  F and a relative humidity of  $50 \pm 5\%$ . The test chamber was preheated to  $95 \pm 4^\circ$  F and all steady state conditions checked. Following placement of the specimens in the chamber and initiation of the test, light transmittance and time were plotted continuously with a multi-range recorder. The test, in the flaming and non-flaming modes, was continued for a minimum of 3 minutes after recording of minimum light transmittance.

**TEST RESULTS:**

**Smoke Density per ASTM E-662**

**Flaming Mode**

<u>Test Specimen Number</u>	<u>Ds @ 1.5min.</u>	<u>Ds @ 4 min.</u>	<u>Dm</u>	<u>Dm Corr.</u>
1	9	51	143	141
2	6	39	166	164
3	<u>10</u>	<u>55</u>	<u>92</u>	<u>91</u>
Average	8	48	134	132

**Non-Flaming Mode**

<u>Test Specimen Number</u>	<u>Ds @ 1.5min.</u>	<u>Ds @ 4 min.</u>	<u>Dm</u>	<u>Dm Corr.</u>
1	1	21	172	171
2	1	17	122	121
3	<u>1</u>	<u>18</u>	<u>165</u>	<u>164</u>
Average	1	19	153	152

**Legend:**

Specific Optical Density: Ds

Maximum Specific Optical Density: Dm

Maximum Specific Optical Density Corrected: Dm Corr.

**OBSERVATIONS:** In the flaming mode, maximum smoke evolution occurred at an average time of 12 minutes, 50 seconds and the non-flaming mode, maximum smoke evolution occurred at an average time of 20 minutes.

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**End of Report**