EPA PG6/47(11) Particulate Emission Type Test Data

Booth Make & Type: **Spraybooth Technology Ltd. Industrial Spraybooth**

Booth Age **Oct 2022**

Test Date: **10 Oct 2022**

The following test results where formulated using a AMS950 hand held aerosol monitoring system and in accordance with the protocol for the measurement of particulate emissions from a vehicle spraybooth.

Test Results

Extract Filter Media & Size: Duplex. (2" paint arrestor & VNF 290B)
Size: 6000mm x 20000mm

Extract Air Volume Rate: 789.00 Metres³ / min

Position of Sampling Points: 4 Mt. from extract fan with 2 holes drilled at right angles.

Conditions under which the test was carried out:

A motor vehicle was placed in the center of the booth. A reading was taken with the Casella AMS950 prior to spraying beginning, to ensure zero particulate emissions. Normal spraying was carried out over a period of 10 minutes using a De vilbiss GTI spray gun at a pressure of 80psi with waterborne paints. Readings were taken 30 seconds after spraying commenced over a period of 2 minutes using both ports in the extract duct. Airflow and temperature readings were taken in the booth during spray cycle to determine efflux velocity.

Was Testing Carried Out in Accordance With Part 4 Of The Testing Procedure: Yes

Temperature Of The Stack Exhaust Gases: 21 ºC

Particle Reading In Sampling Points With No Spraying: 0.00 mg/m³

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Particle Readings (taken at 10 sec intervals over 2 min, 30 sec after commencement of spraying) all readings in mg/m³:

C1	**10 sec:**	0.24	**C2**	**10 sec:**	2.69
	20 sec:	0.77		**20 sec:**	2.51
	30 sec:	0.92		**30 sec:**	2.79
	40 sec:	1.42		**40 sec:**	2.85
	50 sec:	1.70		**50 sec:**	3.26
	60 sec:	2.70		**60 sec:**	3.09
	70 sec:	1.86		**70 sec:**	3.19
	80 sec:	2.51		**80 sec:**	3.17
	90 sec:	3.23		**90 sec:**	2.06
	100 sec:	1.48		**100 sec:**	2.72
	110 sec:	1.38		**110 sec:**	1.69
	120 sec:	1.23		**120 sec:**	1.23
	Total	19.44			31.25
	Average	**1.62**			**2.60**

The Average Concentration Of The Two Readings (temperature corrected) using the formula

$$C(t^oC) \times \frac{273 + t}{273} = \mathbf{C(0^oC)}$$

$$\frac{1.62 + 2.60}{2} = 2.11 \times \frac{(273 + 24)}{273} = \mathbf{2.30\ mg/m^3}$$

The Discharge Velocity Measured At the exit point of the ducting: **15.66 Mt/Sec**

These tests are correct and accurate and are within the EPA PGN 6/47 (11) requirements.

Signature

FOR AND ON BEHALF OF SPRAYBOOTH TECHNOLOGY LIMITED