

Report Number : BA-ENV-2023-08

Date : 09 March, 2023

## WORKPLACE ENVIRONMENTAL ASSESSMENT REPORT

### Indoor Air Emission Inventory

**Facility Name** : IRIS Fabrics Limited.  
**Facility Address** : Zirani Bazar, Kashimpur, Gazipur  
**GPS Coordinate** : Latitude : 23.999265 | Longitude: 90.251186  
**Facility Tel** : +8801817049518  
**Facility Contact** : Mohammad Ahsan Alim – GM (Admin, HR & compliance)  
**Facility Email** : admin@irisgroupbd.com  
**Description of Equipment** : Air Quality Monitor- YesAir, Air Quality Monitor- DM106  
**Data Collection Date & Time** : 09 March 2023, 10:40 AM-02:55 PM (Running Condition)  
**Conducted By** : Md. Monoarul Islam, & Hasan Tawhid

#### Assessment Result : Indoor Air Emission Inventory of PM2.5

Sl. No.	Location	Section Name	Pollutant	Pollutant in µg/m <sup>3</sup>	Pollutant in Kg/ft <sup>3</sup>	Air flow rate in m/s	Air flow rate in CFM	Air Change / hr	Yearly working hour	Air flow change in a year	Area in sft	Height in ft	Total Air Pollutant	Unit
<b>Building-1</b>														
1	GF	Embroidery Section	PM2.5	37	0.00000003	14.9	255.98	1.0366	3300	3420.893	955.88	15.5	0.00012657	Kg
2		Knitting Section		36	0.00000003	14.5	249.11	0.0501	6800	340.955	19232	15.5	1.22744E-05	Kg
3	1st Floor	Finishing Section		33	0.000000033	14.3	245.67	0.0648	4100	265.827	19769.6	11.5	8.77229E-06	Kg

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4	1st Floor	Spot Removing Room	PM2.5	39	0.000000039	12.1	207.88	6.6974	3700	24780.4	161.94	11.5	0.00096643	Kg	
5	2nd floor	Sewing Section		43	0.000000043	14.4	247.39	0.0648	3800	246.083	19931.5	11.5	1.05816E-05	Kg	
6	3rd Floor	Sewing section		45	0.000000045	14.9	255.98	0.0670	3800	254.628	19931.5	11.5	1.14583E-05	Kg	
7	4th Floor	Finishing section		28	0.000000028	11.2	192.42	0.0531	4100	217.695	18907.3	11.5	6.09546E-06	Kg	
8		Spot removing Room-1		30	0.00000003	11.9	204.44	11.8517	3600	42666.1	90	11.5	0.00127998	Kg	
9		Spot removing Room-2		31	0.000000031	11.9	204.44	4.1025	3800	15589.55	260	11.5	0.00048327	Kg	
10	5th floor	Sewing section		43	0.000000043	11.6	199.29	0.0522	3800	198.234	19931.5	11.5	8.52405E-06	Kg	
11	6th Floor	Cutting section		45	0.000000045	14.4	247.39	0.0663	3700	245.457	19456.5	11.5	1.10456E-05	Kg	
12	7th Floor	Sewing Section		41	0.000000041	12.8	219.90	0.0899	3800	341.762	12756.9	11.5	1.40122E-05	Kg	
13		Finishing Section		35	0.000000035	11.8	202.72	0.1397	4100	572.784	7570.97	11.5	2.00474E-05	Kg	
14		Spot removing room		33	0.000000033	11.7	201.01	9.6755	3700	35799.33	108.39	11.5	0.00118137	Kg	
Total													0.00414046	kg	
<b>Building-2</b>															
15	GF	Dyeing section		PM2.5	38	0.000000038	13.1	225.06	0.0280	7050	197.565	19274.6	25	7.50747E-06	Kg
16		Finishing Section	31		0.000000031	13.2	226.78	0.0221	7050	156.154	24572.2	25	4.84079E-06	Kg	
17		Washing Section	33		0.000000033	12.3	211.31	0.7304	7050	5149.546	867.9	20	0.00016993	Kg	
18		Chemical sub-store	32		0.000000032	11.5	197.57	0.2987	7050	2105.648	1587.58	25	6.73807E-05	Kg	
19	1st floor	Printing section		30	0.00000003	12.6	216.47	0.0821	3300	271.032	13751.2	11.5	8.13096E-06	Kg	

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Sl. No.	Location	Section Name	Pollutant	Pollutant in µg/m <sup>3</sup>	Pollutant in Kg/ft <sup>3</sup>	Air flow rate in m/s	Air flow rate in CFM	Air Change / hr	Yearly working hour	Air flow change in a year	Area in sft	Height in ft	Total Air Pollutant	Unit
20	1st floor	Color kitchen room		32	0.000000032	11.8	202.72	1.5459	3300	5101.475	684.19	11.5	0.00016324	Kg
<b>Total</b>													0.00042104	kg
<b>Utility Section</b>														
21	GF	Generator room	PM2.5	41	0.000000041	13.2	226.78	0.1831	8328	1524.772	4954.42	15	6.25157E-05	Kg
22		Boiler room		40	0.00000004	14.6	250.83	0.1467	8465	1242.074	5128.34	20	4.9683E-05	Kg
23		Compressor room		37	0.000000037	11.7	201.01	1.7297	8328	14404.97	697.25	10	0.00053298	Kg
24		WTP		31	0.000000031	14.3	245.67	1.8850	8328	15698.01	680	11.5	0.00048663	Kg
25		ETP		32	0.000000032	11.8	202.72	0.0545	8760	477.006	19424	11.5	1.52642E-05	Kg
<b>Total</b>													0.00114709	Kg
<b>Grand Total</b>													<b>0.00570859</b>	<b>Kg</b>

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### Assessment Result : Indoor Air Emission Inventory of PM10

Sl. No.	Location	Section Name	Pollutant	Pollutant in µg/m <sup>3</sup>	Pollutant in Kg/ft <sup>3</sup>	Air flow rate in m/s	Air flow rate in CFM	Air Change / hr	Yearly working hour	Air flow change in a year	Area in sft	Height in ft	Total Air Pollutant	Unit
<b>Building-1</b>														
1	GF	Embroidery Section	PM10	76	0.000000076	14.9	255.98	1.0366	3300	3420.893	955.88	15.5	0.000259988	Kg
2		Knitting Section		72	0.000000072	14.5	249.11	0.0501	6800	340.955	19231.9	15.5	2.45488E-05	Kg
3	1st Floor	Finishing Section		68	0.000000068	14.3	245.67	0.0648	4100	265.827	19769.6	11.5	1.80762E-05	Kg
4		Spot Removing Room		78	0.000000078	12.1	207.88	6.6974	3700	24780.469	161.94	11.5	0.001932877	Kg
5	2nd floor	Sewing Section		83	0.000000083	14.4	247.39	0.0648	3800	246.083	19931.5	11.5	2.04249E-05	Kg
6	3rd Floor	Sewing section		85	0.000000085	14.9	255.98	0.0670	3800	254.628	19931.5	11.5	2.16434E-05	Kg
7	4th Floor	Finishing section		70	0.00000007	11.2	192.42	0.0531	4100	217.695	18907.3	11.5	1.52386E-05	Kg
8		Spot removing Room-1		71	0.000000071	11.9	204.44	11.851	3600	42666.157	90	11.5	0.003029297	Kg
9		Spot removing Room-2		73	0.000000073	11.9	204.44	4.1025	3800	15589.557	260	11.5	0.001138038	Kg
10	5th floor	Sewing section		85	0.000000085	11.6	199.29	0.0522	3800	198.234	19931.5	11.5	1.68499E-05	Kg
11	6th Floor	Cutting section		86	0.000000086	14.4	247.39	0.0663	3700	245.457	19456.5	11.5	2.11093E-05	Kg
12	7th Floor	Sewing Section		82	0.000000082	12.8	219.90	0.0899	3800	341.762	12756.9	11.5	2.80245E-05	Kg
13		Finishing Section		68	0.000000068	11.8	202.72	0.1397	4100	572.784	7570.97	11.5	3.89493E-05	Kg
14		Spot removing room		72	0.000000072	11.7	201.01	9.6755	3700	35799.333	108.39	11.5	0.002577552	Kg
<b>Total</b>													0.009142616	Kg

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<b>Building-2</b>														
15	GF	Dyeing section	PM10	79	0.000000079	13.1	225.06	0.0280	7050	197.565	19274.6	25	1.56076E-05	Kg
16		Finishing Section		70	0.00000007	13.2	226.78	0.0221	7050	156.154	24572.2	25	1.09308E-05	Kg
17		Washing Section		68	0.000000068	12.3	211.31	0.7304	7050	5149.546	867.9	20	0.000350169	Kg
18		Chemical sub-store		71	0.000000071	11.5	197.57	0.2987	7050	2105.648	1587.58	25	0.000149501	Kg
19	1st floor	Printing section		69	0.000000069	12.6	216.47	0.0821	3300	271.032	13751.2	11.5	1.87012E-05	Kg
20		Color kitchen room		75	0.000000075	11.8	202.72	1.5459	3300	5101.475	684.19	11.5	0.000382611	Kg
Total													0.00092752	Kg
<b>Utility Section</b>														
21	GF	Generator room	PM10	82	0.000000082	13.2	226.78	0.1831	8328	1524.772	4954.42	15	0.000125031	Kg
22		Boiler room		81	0.000000081	14.6	250.83	0.1467	8465	1242.074	5128.34	20	0.000100608	Kg
23		Compressor room		79	0.000000079	11.7	201.01	1.7297	8328	14404.974	697.25	10	0.001137993	Kg
24		WTP		70	0.00000007	14.3	245.67	1.8850	8328	15698.003	680	11.5	0.00109886	Kg
25		ETP		74	0.000000074	11.8	202.72	0.0545	8760	477.006	19424	11.5	3.52985E-05	Kg
Total													0.002497791	Kg
<b>Grand Total</b>													<b>0.012567928</b>	<b>Kg</b>

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**Assessment Result : Indoor Air Emission Inventory of SO2**

Sl. No.	Location	Section Name	Pollutant	Pollutant in µg/m <sup>3</sup>	Pollutant in Kg/ft <sup>3</sup>	Air flow rate in m/s	Air flow rate in CFM	Air Change / hr	Yearly working hour	Air flow change in a year	Area in sft	Height in ft	Total Air Pollutant	Unit
<b>Building-1</b>														
1	GF	Embroidery Section	SO2	26.2	2.62E-08	14.9	255.98	1.0366	3300	3420.893	955.88	15.5	8.96274E-05	Kg
2		Knitting Section		28.8	2.88E-08	14.5	249.11	0.0501	6800	340.955	19231.9	15.5	9.81952E-06	Kg
3	1st Floor	Finishing Section		34.1	3.41E-08	14.3	245.67	0.0648	4100	265.827	19769.6	11.5	9.06469E-06	Kg
4		Spot Removing Room		39.3	3.93E-08	12.1	207.88	6.6974	3700	24780.469	161.94	11.5	0.000973872	Kg
5	2nd floor	Sewing Section		31.4	3.14E-08	14.4	247.39	0.0648	3800	246.083	19931.5	11.5	7.72701E-06	Kg
6	3rd Floor	Sewing section		28.8	2.88E-08	14.9	255.98	0.0670	3800	254.628	19931.5	11.5	7.33328E-06	Kg
7	4th Floor	Finishing section		26.2	2.62E-08	11.2	192.42	0.0531	4100	217.695	18907.3	11.5	5.70361E-06	Kg
8		Spot removing Room-1		36.7	3.67E-08	11.9	204.44	11.8517	3600	42666.157	90	11.5	0.001565848	Kg
9		Spot removing Room-2		41.9	4.19E-08	11.9	204.44	4.1025	3800	15589.557	260	11.5	0.000653202	Kg
10	5th floor	Sewing section		31.4	3.14E-08	11.6	199.29	0.0522	3800	198.234	19931.5	11.5	6.22454E-06	Kg
11	6th Floor	Cutting section		28.8	2.88E-08	14.4	247.39	0.0663	3700	245.457	19456.5	11.5	7.06916E-06	Kg
12	7th Floor	Sewing Section		26.2	2.62E-08	12.8	219.90	0.0899	3800	341.762	12756.9	11.5	8.95417E-06	Kg
13		Finishing Section		36.7	3.67E-08	11.8	202.72	0.1397	4100	572.784	7570.97	11.5	2.10212E-05	Kg
14		Spot removing room		41.9	4.19E-08	11.7	201.01	9.6755	3700	35799.333	108.39	11.5	0.001499992	Kg
<b>Total</b>													0.004865459	Kg

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<b>Building-2</b>														
15	GF	Dyeing section	SO2	36.7	3.67E-08	13.1	225.06	0.0280	7050	197.565	19274.6	25	7.25064E-06	Kg
16		Finishing Section		31.4	3.14E-08	13.2	226.78	0.0221	7050	156.154	24572.2	25	4.90325E-06	Kg
17		Washing Section		34.1	3.41E-08	12.3	211.31	0.7304	7050	5149.546	867.9	20	0.0001756	Kg
18		Chemical sub-store		39.3	3.93E-08	11.5	197.57	0.2987	7050	2105.648	1587.58	25	8.2752E-05	Kg
19	1st floor	Printing section		31.4	3.14E-08	12.6	216.47	0.0821	3300	271.032	13751.2	11.5	8.51041E-06	Kg
20		Color kitchen room		34.1	3.41E-08	11.8	202.72	1.5459	3300	5101.475	684.19	11.5	0.00017396	Kg
Total													0.000452976	Kg
<b>Utility Section</b>														
21	GF	Generator room	SO2	44.5	4.45E-08	13.2	226.78	0.1831	8328	1524.772	4954.42	15	6.78524E-05	Kg
22		Boiler room		41.9	4.19E-08	14.6	250.83	0.1467	8465	1242.074	5128.34	20	5.20429E-05	Kg
23		Compressor room		36.7	3.67E-08	11.7	201.01	1.7297	8328	14404.974	697.25	10	0.000528663	Kg
24		WTP		34.1	3.41E-08	14.3	245.67	1.8850	8328	15698.003	680	11.5	0.000535302	Kg
25		ETP		47.2	4.72E-08	11.8	202.72	0.0545	8760	477.006	19424	11.5	2.25147E-05	Kg
Total													0.001206374	Kg
<b>Grand Total</b>													<b>0.00652481</b>	<b>Kg</b>

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### Assessment Result : Indoor Air Emission Inventory of NO2

Sl. No.	Location	Section Name	Pollutant	Pollutant in µg/m <sup>3</sup>	Pollutant in Kg/ft <sup>3</sup>	Air flow rate in m/s	Air flow rate in CFM	Air Change / hr	Yearly working hour	Air flow change in a year	Area in sft	Height in ft	Total Air Pollutant	Unit
<b>Building-1</b>														
1	GF	Embroidery Section	NO2	18.8	1.88E-08	14.9	255.98	1.0366	3300	3420.893	955.88	15.5	6.43128E-05	Kg
2		Knitting Section		22.6	2.26E-08	14.5	249.11	0.0501	6800	340.955	19231.9	15.5	7.70559E-06	Kg
3	1st Floor	Finishing Section		28.2	2.82E-08	14.3	245.67	0.0648	4100	265.827	19769.6	11.5	7.49632E-06	Kg
4		Spot Removing Room		20.7	2.07E-08	12.1	207.88	6.6974	3700	24780.469	161.94	11.5	0.000512956	Kg
5	2nd floor	Sewing Section		24.5	2.45E-08	14.4	247.39	0.0648	3800	246.083	19931.5	11.5	6.02904E-06	Kg
6	3rd Floor	Sewing section		26.3	2.63E-08	14.9	255.98	0.0670	3800	254.628	19931.5	11.5	6.69671E-06	Kg
7	4th Floor	Finishing section		22.6	2.26E-08	11.2	192.42	0.0531	4100	217.695	18907.3	11.5	4.9199E-06	Kg
8		Spot removing Room-1		26.3	2.63E-08	11.9	204.44	11.8517	3600	42666.157	90	11.5	0.00112212	Kg
9		Spot removing Room-2		24.5	2.45E-08	11.9	204.44	4.1025	3800	15589.557	260	11.5	0.000381944	Kg
10	5th floor	Sewing section		20.7	2.07E-08	11.6	199.29	0.0522	3800	198.234	19931.5	11.5	4.10344E-06	Kg
11	6th Floor	Cutting section		18.8	1.88E-08	14.4	247.39	0.0663	3700	245.457	19456.5	11.5	4.61459E-06	Kg
12	7th Floor	Sewing Section		22.6	2.26E-08	12.8	219.90	0.0899	3800	341.762	12756.9	11.5	7.72382E-06	Kg
13		Finishing Section		24.5	2.45E-08	11.8	202.72	0.1397	4100	572.784	7570.97	11.5	1.40332E-05	Kg
14		Spot removing room		20.7	2.07E-08	11.7	201.01	9.6755	3700	35799.333	108.39	11.5	0.000741046	Kg
<b>Total</b>													0.002885701	Kg



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<b>Building-2</b>														
15	GF	Dyeing section	NO2	30.1	3.01E-08	13.1	225.06	0.0280	7050	197.565	19274.6	25	5.94671E-06	Kg
16		Finishing Section		28.2	2.82E-08	13.2	226.78	0.0221	7050	156.154	24572.2	25	4.40355E-06	Kg
17		Washing Section		32	0.000000032	12.3	211.31	0.7304	7050	5149.546	867.9	20	0.000164785	Kg
18		Chemical sub-store		26.3	2.63E-08	11.5	197.57	0.2987	7050	2105.648	1587.58	25	5.53785E-05	Kg
19	1st floor	Printing section		24.5	2.45E-08	12.6	216.47	0.0821	3300	271.032	13751.2	11.5	6.64029E-06	Kg
20		Color kitchen room		28.2	2.82E-08	11.8	202.72	1.5459	3300	5101.475	684.19	11.5	0.000143862	Kg
Total													0.000381016	Kg
<b>Utility Section</b>														
21	GF	Generator room	NO2	37.6	3.76E-08	13.2	226.78	0.1831	8328	1524.772	4954.42	15	5.73314E-05	Kg
22		Boiler room		35.8	3.58E-08	14.6	250.83	0.1467	8465	1242.074	5128.34	20	4.44662E-05	Kg
23		Compressor room		33.9	3.39E-08	11.7	201.01	1.7297	8328	14404.974	697.25	10	0.000488329	Kg
24		WTP		24.5	2.45E-08	14.3	245.67	1.8850	8328	15698.003	680	11.5	0.000384601	Kg
25		ETP		26.3	2.63E-08	11.8	202.72	0.0545	8760	477.006	19424	11.5	1.25453E-05	Kg
Total													0.000987273	Kg
<b>Grand Total</b>													<b>0.00425399</b>	<b>Kg</b>

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### Assessment Result : Indoor Air Emission Inventory of CO

Sl. No.	Location	Section Name	Pollutant	Pollutant in mg/m <sup>3</sup>	Pollutant in ug/ m <sup>3</sup>	Pollutant in Kg/ft <sup>3</sup>	Air flow rate in m/s	Air flow rate in CFM	Air Change/ hr	Yearly working hour	Air flow change in a year	Area in sft	Height in ft	Total Air Pollutant	Unit
<b>Building-1</b>															
1	GF	Embroidery Section	CO	0.66	756	7.56098E-07	14.9	255.98	1.037	3300	3420.89	955.88	15.5	0.002586531	Kg
2		Knitting Section		0.68	779	7.7901E-07	14.9	255.98	0.052	6800	350.36	19231.9	15.5	0.000272935	Kg
3	1st Floor	Finishing Section		0.81	928	9.27939E-07	14.9	255.98	0.068	4100	276.98	19769.6	11.5	0.000257021	Kg
4		Spot Removing Room		0.72	825	8.24834E-07	14.5	249.11	8.026	3700	29695.60	161.94	11.5	0.024493954	Kg
5	2nd floor	Sewing Section		0.63	722	7.2173E-07	14.3	245.67	0.064	3800	244.37	19931.5	11.5	0.000176372	Kg
6	3rd Floor	Sewing section		0.61	699	6.98818E-07	12.1	207.88	0.054	3800	206.78	19931.5	11.5	0.0001445	Kg
7	4th Floor	Finishing section		0.71	813	8.13378E-07	14.4	247.39	0.068	4100	279.89	18907.3	11.5	0.000227659	Kg
8		Spot removing Room-1		0.74	848	8.47746E-07	14.9	255.98	14.840	3600	53422.33	90	11.5	0.045288589	Kg
9		Spot removing Room-2		0.77	882	8.82115E-07	11.2	192.42	3.861	3800	14672.52	260	11.5	0.012942847	Kg
10	5th floor	Sewing section		0.66	756	7.56098E-07	11.9	204.44	0.054	3800	203.36	19931.5	11.5	0.00015376	Kg
11	6th Floor	Cutting section		0.58	664	6.6445E-07	11.9	204.44	0.055	3700	202.84	19456.5	11.5	0.000134779	Kg
12	7th Floor	Sewing Section		0.52	596	5.95714E-07	11.6	199.29	0.082	3800	309.72	12756.9	11.5	0.000184506	Kg
13		Finishing Section		0.6	687	6.87362E-07	14.4	247.39	0.170	4100	698.99	7570.97	11.5	0.00048046	Kg
14		Spot removing room		0.76	871	8.70658E-07	12.8	219.90	10.585	3700	39165.08	108.39	11.5	0.034099412	Kg
<b>Total</b>														<b>0.121443326</b>	<b>Kg</b>

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Sl. No.	Location	Section Name	Pollutant	Pollutant in mg/m <sup>3</sup>	Pollutant in ug/m <sup>3</sup>	Pollutant in Kg/ft <sup>3</sup>	Air flow rate in m/s	Air flow rate in CFM	Air Change/hr	Yearly working hour	Air flow change in a year	Area in sft	Height in ft	Total Air Pollutant	Unit
<b>Building-2</b>															
15	GF	Dyeing section	CO	0.66	756	7.56098E-07	11.7	201.01	0.025	7050	176.45	19274.6	25	0.000133414	Kg
16		Finishing Section		0.74	848	8.47746E-07	13.1	225.06	0.022	7050	154.97	24572.2	25	0.000131376	Kg
17		Washing Section		0.8	916	9.16483E-07	13.2	226.78	0.784	7050	5526.34	867.9	20	0.005064797	Kg
18		Chemical sub-store		0.71	813	8.13378E-07	12.3	211.31	0.319	7050	2252.13	1587.58	25	0.001831832	Kg
19	1st floor	Printing section	CO	0.55	630	6.30082E-07	11.5	197.57	0.075	3300	247.37	13751.2	11.5	0.000155864	Kg
20		Color kitchen room		0.7	802	8.01922E-07	12.6	216.47	1.651	3300	5447.34	684.19	11.5	0.004368342	Kg
Total														0.011685625	Kg
<b>Utility Section</b>															
21	GF	Generator room	CO	0.73	836	8.3629E-07	13.2	226.78	0.183	8328	1524.77	4954.42	15	0.001275152	Kg
22		Boiler room		0.72	825	8.24834E-07	14.6	250.83	0.147	8465	1242.07	5128.34	20	0.001024505	Kg
23		Compressor room		0.81	928	9.27939E-07	11.7	201.01	1.730	8328	14404.97	697.25	10	0.013366932	Kg
24		WTP		0.78	894	8.93571E-07	14.3	245.67	1.885	8328	15698.00	680	11.5	0.014027273	Kg
25		ETP		0.55	630	6.30082E-07	11.8	202.72	0.054	8760	477.01	19424	11.5	0.000300553	Kg
Total														0.029994416	Kg
<b>Grand Total</b>														<b>0.163123366</b>	<b>Kg</b>

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### Assessment Result : Indoor Air Emission Inventory of VOC

Sl. No.	Location	Section Name	Pollutant	Pollutant in ppm	Pollutant in ug/ m3	Pollutant in Kg/ft3	Air flow rate in m/s	Air flow rate in CFM	Air Change/ hr	Yearly working hour	Air flow change in a year	Area in sft	Height in ft	Total Air Pollutant	Unit
<b>Building-1</b>															
1	GF	Embroidery Section	VOC	0.04	40	0.00000004	14.9	255.98	1.037	3300	3420.89	955.88	15.5	0.00013683	Kg
2		Knitting Section		0.02	20	0.00000002	14.9	255.98	0.052	6800	350.36	19231.9	15.5	7.00722E-06	Kg
3	1st Floor	Finishing Section		0.13	130	0.00000013	14.9	255.98	0.068	4100	276.98	19769.6	11.5	3.60075E-05	Kg
4		Spot Removing Room		0.41	410	0.00000041	14.5	249.11	8.026	3700	29695.60	161.94	11.5	0.012175198	Kg
5	2nd floor	Sewing Section		0.08	80	0.00000008	14.3	245.67	0.064	3800	244.37	19931.5	11.5	1.95499E-05	Kg
6	3rd Floor	Sewing section		0.07	70	0.00000007	12.1	207.88	0.054	3800	206.78	19931.5	11.5	1.44745E-05	Kg
7	4th Floor	Finishing section		0.11	110	0.00000011	14.4	247.39	0.068	4100	279.89	18907.3	11.5	3.07883E-05	Kg
8		Spot removing Room-1		0.39	390	0.00000039	14.9	255.98	14.840	3600	53422.33	90	11.5	0.02083470	Kg
9		Spot removing Room-2		0.4	400	0.0000004	11.2	192.42	3.861	3800	14672.52	260	11.5	0.00586901	Kg
10	5th floor	Sewing section		0.09	90	0.00000009	11.9	204.44	0.054	3800	203.36	19931.5	11.5	1.83024E-05	Kg
11	6th Floor	Cutting section		0.08	80	0.00000008	11.9	204.44	0.055	3700	202.84	19456.5	11.5	1.62274E-05	Kg
12	7th Floor	Sewing Section		0.06	60	0.00000006	11.6	199.29	0.082	3800	309.72	12756.9	11.5	1.85833E-05	Kg
13		Finishing Section		0.07	70	0.00000007	14.4	247.39	0.170	4100	698.99	7570.97	11.5	4.89293E-05	Kg
14		Spot removing room		0.38	380	0.00000038	12.8	219.90	10.585	3700	39165.08	108.39	11.5	0.01488273	Kg
<b>Total</b>														0.05410835	Kg

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Sl. No.	Location	Section Name	Pollutant	Pollutant in ppm	Pollutant in ug/ m3	Pollutant in Kg/ft3	Air flow rate in m/s	Air flow rate in CFM	Air Change/ hr	Yearly working hour	Air flow change in a year	Area in sft	Height in ft	Total Air Pollutant	Unit
<b>Building-2</b>															
15	GF	Dyeing section	VOC	0.25	250	0.00000025	11.7	201.01	0.025	7050	176.45	19274.6	25	4.41128E-05	Kg
16		Finishing Section		0.22	220	0.00000022	13.1	225.06	0.022	7050	154.97	24572.2	25	3.40937E-05	Kg
17		Washing Section		0.23	230	0.00000023	13.2	226.78	0.784	7050	5526.34	867.9	20	0.00127106	Kg
18		Chemical sub-store		0.44	440	0.00000044	12.3	211.31	0.319	7050	2252.13	1587.58	25	0.00099094	Kg
19	1st floor	Printing section		0.31	310	0.00000031	11.5	197.57	0.075	3300	247.37	13751.2	11.5	7.66849E-05	Kg
20		Color kitchen room		0.29	290	0.00000029	12.6	216.47	1.651	3300	5447.34	684.19	11.5	0.00157973	Kg
Total														0.00399661	Kg
<b>Utility Section</b>															
21	GF	Generator room	VOC	0.14	140	0.00000014	13.2	226.78	0.183	8328	1524.77	4954.42	15	0.0002134	Kg
22		Boiler room		0.15	150	0.00000015	14.6	250.83	0.147	8465	1242.07	5128.34	20	0.00018631	Kg
23		Compressor room		0.13	130	0.00000013	11.7	201.01	1.730	8328	14404.97	697.25	10	0.00187265	Kg
24		WTP		0.13	130	0.00000013	14.3	245.67	1.885	8328	15698.00	680	11.5	0.00204074	Kg
25		ETP		0.09	90	0.00000009	11.8	202.72	0.054	8760	477.01	19424	11.5	4.29306E-05	Kg
Total														0.00435601	Kg
<b>Grand Total</b>														<b>0.06246106</b>	<b>Kg</b>

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### Assessment Result : Indoor Air Emission Inventory of CO2

Sl. No.	Location	Section Name	Pollutant	Pollutant in ppm	Pollutant in ug/m3	Pollutant in Kg/ft3	Air flow rate in m/s	Air flow rate in CFM	Air Change / hr	Yearly working hour	Air flow change in a year	Area in sft	Height in ft	Total Air Pollutant	Unit
<b>Building-1</b>															
1	GF	Embroidery Section	CO2	345	621000	0.000621	14.9	255.98	1.037	3300	3420.89	955.88	15.5	2.124374821	Kg
2		Knitting Section		322	579600	0.0005796	14.9	255.98	0.052	6800	350.36	19231.9	15.5	0.203069315	Kg
3	1st Floor	Finishing Section		336	604800	0.0006048	14.9	255.98	0.068	4100	276.98	19769.6	11.5	0.167517744	Kg
4		Spot Removing Room		338	608400	0.0006084	14.5	249.11	8.026	3700	29695.60	161.94	11.5	18.06680538	Kg
5	2nd floor	Sewing Section		340	612000	0.000612	14.3	245.67	0.064	3800	244.37	19931.5	11.5	0.149557084	Kg
6	3rd Floor	Sewing section		342	615600	0.0006156	12.1	207.88	0.054	3800	206.78	19931.5	11.5	0.127292703	Kg
7	4th Floor	Finishing section		331	595800	0.0005958	14.4	247.39	0.068	4100	279.89	18907.3	11.5	0.166760509	Kg
8		Spot removing Room-1		341	613800	0.0006138	14.9	255.98	14.840	3600	53422.33	90	11.5	32.79062642	Kg
9		Spot removing Room-2		334	601200	0.0006012	11.2	192.42	3.861	3800	14672.52	260	11.5	8.821121678	Kg
10	5th floor	Sewing section		345	621000	0.000621	11.9	204.44	0.054	3800	203.36	19931.5	11.5	0.126286838	Kg
11	6th Floor	Cutting section		342	615600	0.0006156	11.9	204.44	0.055	3700	202.84	19456.5	11.5	0.124870105	Kg
12	7th Floor	Sewing Section		338	608400	0.0006084	11.6	199.29	0.082	3800	309.72	12756.9	11.5	0.188434834	Kg

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Sl. No.	Location	Section Name	Pollutant	Pollutant in ppm	Pollutant in ug/m3	Pollutant in Kg/ft3	Air flow rate in m/s	Air flow rate in CFM	Air Change / hr	Yearly working hour	Air flow change in a year	Area in sft	Height in ft	Total Air Pollutant	Unit
13	7th Floor	Finishing Section	CO2	326	586800	0.0005868	14.4	247.39	0.170	4100	698.99	7570.97	11.5	0.410167739	Kg
14		Spot removing room		328	590400	0.0005904	12.8	219.90	10.585	3700	39165.08	108.39	11.5	23.12306477	Kg
<b>Total</b>														86.58994994	Kg
<b>Building-2</b>															
15	GF	Dyeing section	CO2	325	585000	0.000585	11.7	201.01	0.025	7050	176.45	19274.6	25	0.103223968	Kg
16		Finishing Section		337	606600	0.0006066	13.1	225.06	0.022	7050	154.97	24572.2	25	0.094005673	Kg
17		Washing Section		325	585000	0.000585	13.2	226.78	0.784	7050	5526.34	867.9	20	3.23291019	Kg
18		Chemical sub-store		345	621000	0.000621	12.3	211.31	0.319	7050	2252.13	1587.58	25	1.398571296	Kg
19	1st floor	Printing section	CO2	338	608400	0.0006084	11.5	197.57	0.075	3300	247.37	13751.2	11.5	0.150500268	Kg
20		Color kitchen room		332	597600	0.0005976	12.6	216.47	1.651	3300	5447.34	684.19	11.5	3.255329254	Kg
<b>Total</b>														8.234540648	Kg
<b>Utility Section</b>															
21	GF	Generator room		348	626400	0.0006264	13.2	226.78	0.183	8328	1524.77	4954.42	15	0.955117335	Kg
22		Boiler room		345	621000	0.000621	14.6	250.83	0.147	8465	1242.07	5128.34	20	0.771327867	Kg

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Sl. No.	Location	Section Name	Pollutant	Pollutant in ppm	Pollutant in ug/m3	Pollutant in Kg/ft3	Air flow rate in m/s	Air flow rate in CFM	Air Change / hr	Yearly working hour	Air flow change in a year	Area in sft	Height in ft	Total Air Pollutant	Unit
23	GF	Compressor room		342	615600	0.0006156	11.7	201.01	1.730	8328	14404.97	697.25	10	8.867701718	Kg
24		WTP		329	592200	0.0005922	14.3	245.67	1.885	8328	15698.00	680	11.5	9.296357442	Kg
25		ETP		334	601200	0.0006012	11.8	202.72	0.054	8760	477.01	19424	11.5	0.286776121	Kg
<b>Total</b>														20.17728048	Kg
<b>Grand Total</b>														<b>115.0017711</b>	<b>Kg</b>

**Report prepared by**



**Md. Monoarul Islam**  
**Auditor**  
**Supplier Management**  
**Business Assurance**  
**ITS Labtest Bangladesh Ltd.**

**Report authorized by**



**Shoriful Islam**  
**Head of Business Assurance**  
**Supplier Management**  
**Business Assurance**  
**ITS Labtest Bangladesh Ltd.**