

**Test Report
on
Workplace Temperature Level Assessment
Prepared
for
Cotton Clothing (BD) Ltd.**

Kazi Tower, 27 Road, Gazipura, Tongi, Gazipur, Bangladesh

Report No. XST20160087



Prepared by

Workplace Temperature Level Assessment at Cotton Clothing (BD) Ltd.

Kazi Tower, 27 Road, Gazipura, Tongi, Gazipur, Bangladesh

Report No.	XST20160087
Sampling Date	November 12, 2016
Time of Sampling	02:00 p.m.- 04:30 p.m.
Reporting Date	November 12, 2016

Outside Weather Conditions:	
Temperature	30.1°C
Humidity	58.2% RH
Visibility/ Season	Winter & Sunny Atmosphere

Method of Sampling & Analysis:

Sampling and measurement of temperature level was done following ASHRAE international standards.

Description of Instrumentation:

Calibrated EE-80014A digital Thermo- Hygro Meter was used to measure the temperature level of the workplace.

Range of Measurement	Semiconductor Sensor 0 °C to 40 °C	Type-K thermocouple- -20 °C to 1000 °C
Accuracy	±0.5°C	±3%
Resolution	0.1 °C/°F	0.1° up to 200° , 1° over 200 °

Measurement Uncertainties:

An uncertainty of measurement is ±3% for the following measurements.

Team:

All the experiments and reporting have been done under the supervision of
Mohammad Kabir Hossain (MSc in Environment & Sustainable Technology,
Manchester, UK).

Team members involved in field experiments and reporting:

❖ **Mohammad Faridul Islam** (BSc & MSc in Environment Science)

Lab Analyst, 3R Environmental Consulting Limited

❖ **Mohammad Mosarof Hossain**

Assistant Technical officer, 3R Environmental Consulting Limited

Result of Assessment:

Floor	Section	Avg. Temperature Level (°C)	Recommended Value											
Production Building Ground Floor	Generator Room	32.10	OSHA Guidelines: <table><tr><td>Continuous Work</td><td>30.0 °C</td></tr><tr><td>75% Work, 25% Rest per hour</td><td>30.6 °C</td></tr><tr><td>50% Work, 50% Rest per hour</td><td>31.4 °C</td></tr><tr><td>25% Work, 75% Rest per hour</td><td>32.2 °C</td></tr></table>		Continuous Work	30.0 °C	75% Work, 25% Rest per hour	30.6 °C	50% Work, 50% Rest per hour	31.4 °C	25% Work, 75% Rest per hour	32.2 °C		
Continuous Work	30.0 °C													
75% Work, 25% Rest per hour	30.6 °C													
50% Work, 50% Rest per hour	31.4 °C													
25% Work, 75% Rest per hour	32.2 °C													
Ground Floor	Boiler Room	31.50												
Ground Floor	Compressor Room	29.80												
Ground Floor	Go down	28.90												
Ground Floor	Child Care Room	29.10	ACGIH Screening Criteria for Heat Stress Exposure: <table><tr><th>Allocation of Work / Rest cycle</th><th>Temp. Limit</th></tr><tr><td>75-100 %</td><td>31.60°C</td></tr><tr><td>50-75%</td><td>31.0 °C</td></tr><tr><td>25-50%</td><td>32.0 °C</td></tr><tr><td>0-25%</td><td>32.5</td></tr></table>		Allocation of Work / Rest cycle	Temp. Limit	75-100 %	31.60°C	50-75%	31.0 °C	25-50%	32.0 °C	0-25%	32.5
Allocation of Work / Rest cycle	Temp. Limit													
75-100 %	31.60°C													
50-75%	31.0 °C													
25-50%	32.0 °C													
0-25%	32.5													
1 st Floor	Doctor Room	28.80												
1 st Floor	Dining Hall	29.50												
2 nd Floor	Cutting Section	28.20												
3 rd Floor	Finishing Section	29.20												
3 rd Floor	Packing Section	28.80												
3 rd Floor	Spot Removing Room	28.60												
4 th Floor	Sewing Section	29.10												
5 th Floor	Sewing Section	28.70												

Expert Comments and Recommendation:

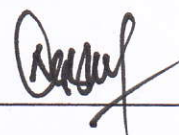
It has been observed that the workplace temperature Level of the factory is **satisfactory** according to the **OSHA & ACGIH** standards temperature reference limit.

Prepared by

MD. FARIDUL ISLAM
M.Sc. (NSU), B. Sc (Hon's, MBSTU)
Dept. of Environment Science
Lab Analyst
3R Environmental Laboratory

Checked by

MD. MAHASIN ALI
M.Sc. (Thesis), B.Sc. (Hon's)
Dept. of Chemistry, Rajshahi University
Lab Incharge
3R Environmental Laboratory
3R Environmental Consulting Limited

Approved by

MD. NAZRUL ISLAM
Chief Executive
3R Environmental Consulting Limited

