How to Use The Heat Stress Table

جامعة الملك عبدالله للعلوم والتقنية
King Abdullah University of Science and Technology | **Health, Safety and Environment**

1. Monitor temperature and humidity throughout the day using a handheld temperature humidity meter.
2. Take hourly measurements during peak summer months usually from 1 July to September annually (It is good practice to keep record of your readings, date, time, location, temperature, humidity, and Humidex readings).
3. Locate the Humidex Value by plotting the temperature and humidity readings on the Heat Stress Table.
4. Use the Humidex Value to identify the danger category on the Heat Index Table.
5. Communicate real-time results to managers, supervisors and workers with recommended resting and water intake guides, for example by SMS.
6. Check and monitor that precautions are taken.

HEAT STRESS TABLE
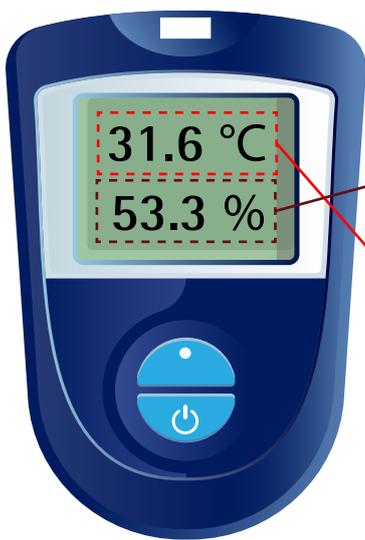
Relative Humidity Reading

Temperature Reading

31.6 °C
53.3 %

Temperature (°C)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
52																					
51						Stop Work - Implement Red Flag Work Procedure															
50																					
49	49	49	49	50	55	59	65	71													
48	48	48	48	49	53	57	62	67	73												
47	47	47	47	47	51	55	59	64	70												
46	46	46	46	46	49	53	57	61	66	72											
45	45	45	45	45	47	51	54	58	63	68	73										
44	44	44	44	44	46	48	52	56	60	64	69	75									
43	43	43	43	43	44	47	49	53	57	61	65	70									
42	42	42	42	42	42	45	47	50	54	58	62	66	71								
41	41	41	41	41	41	43	45	48	51	54	58	62	67	72							
40	40	40	40	40	40	41	43	46	48	51	55	59	63	67	72						
39	39	39	39	39	39	40	41	43	46	49	52	55	59	63	67	72					
38	38	38	38	38	38	39	41	43	46	49	52	55	59	63	67	71					
37	37	37	37	37	37	37	38	39	41	43	46	49	51	55	58	62	66	70			
36	36	36	36	36	36	36	36	38	39	41	43	46	48	51	54	58	61	65	69	74	
35	35	35	35	35	35	35	35	36	37	39	41	43	45	48	50	53	57	60	64	68	72
34	34	34	34	34	34	34	34	34	35	37	38	40	42	44	47	49	52	55	58	62	66
33	33	33	33	33	33	33	33	33	34	35	36	38	40	42	44	46	48	51	54	57	60
32	32	32	32	32	32	33	33	33	33	33	34	36	37	39	40	42	44	47	49	52	54
31	31	31	31	31	31	31	31	31	31	32	33	34	35	36	38	39	41	43	45	47	49
30	30	30	30	30	30	30	30	30	30	30	31	32	33	34	35	36	38	39	41	42	44

Humidex Value is between: 33 – 39 which is at Extreme Caution level.

HEAT INDEX TABLE

Danger Category	Humidex Value	Heat Syndrome	Recommended Resting Time	Recommended Water Intake
Caution	27 - 32	Fatigue is possible with prolonged exposure and activity. Continuing activity could result in heat cramps.	Normal/Scheduled	1 Glass/20 minutes
Extreme Caution	33 - 39	Extreme caution: heat cramps and exhaustion are possible. Continuing activity could result in heat stroke.	7 minutes per hour	1 Glass/15 minutes
Danger	40 - 51	Danger: heat cramps and heat exhaustion are likely. Heat stroke is probable with continued activity.	10 minutes/hour. Control working at heights closely or stop work.	1 Glass/10 minutes
Extreme Danger	>52	Heat stroke is imminent.	All non-protected work stop. Work can only continue for specific activities, with a specific plan, risk assessment and approval from KAUST HSE.	
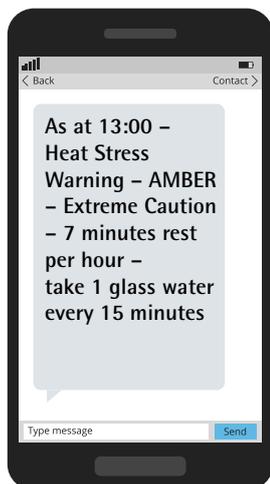
Notification via mobile SMS

As at 13:00 – Heat Stress Warning – AMBER – Extreme Caution – 7 minutes rest per hour – take 1 glass water every 15 minutes

Note! 1 Glass = 250 ml.
DO NOT drink more than 1.5 liters per hour (maximum water absorption rate of body)

NEVER IGNORE ANYONE'S SYMPTOMS DESPITE YOUR MEASUREMENTS!