



Food Service Technology Center Appliance Test Summary Report

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Manufacturer	Imperial
Model	ITG-36-E
Appliance	3-foot flat electric griddle

Report Number	5012.08.33
Test Date	Sept., 2008
Tested By	D. Cowen

Purpose of Testing

This testing determined the energy input rate, preheat time and energy, idle energy rate and heavy-load cooking-energy efficiency of the griddle by applying the ASTM F1275-03 Standard Test Method.

Energy Input Rate

Rated Energy Input Rate (kW)	12.0
Measured Energy Input Rate (kW)	11.4
Difference (%)	4.73

Preheat to 375°F

Duration (min)	10.5
Electrical Energy Consumption (kWh)	1.71
Preheat Rate (°F/min)	28.9

Idle at 375°F

Idle Energy Rate (kW)	1.26
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Heavy-Load Cooking-Energy Efficiency ^a

Food Product	Hamburgers
Load Size (Count)	24
Cook Time (min)	8.19
Average Recovery Time (min)	3.87
Electric Cooking Energy Rate (kW)	5.39
Energy to Food (Btu/lb)	476
Energy to Appliance (Btu/lb)	619
Cooking-Energy Efficiency (%)	77.0 ± 3.4
Production Capacity (lb/hr)	29.7 ± 1.1

^a based on a minimum of three test replicates.



Imperial ITG-36-E electric griddle.

Imperial Range

1128 Sherborn Street
Corona, CA 92879-2089
www.imperialrange.com

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Heavy-Load Test Data

	Repetition #1	Repetition #2	Repetition #3
Measured Values			
Test Voltage (V)	208	208	208
Electrical Energy Consumption (Wh)	6,450	6,450	6,600
Total Energy (Btu)	22,014	22,014	22,526
Cook Time (min)	8.08	8.25	8.25
Total Test Time (min)	71.58	72.09	73.56
Weight Loss (%)	33.33	34.23	33.91
Initial Weight (lb)	35.785	35.977	35.774
Final Weight (lb)	23.857	23.662	23.643
Initial Moisture Content (%)	63.7	63.7	63.7
Final Moisture Content (%)	53.4	54.7	54.7
Initial Temperature (°F)	0	0	0
Final Temperature (°F)	158	161	160
Calculated Values			
Initial Weight of Water (lb)	22.795	22.917	22.788
Final Weight of Water (lb)	12.751	12.951	12.907
Weight of Fat (lb)	5.833	5.864	5.831
Weight of Solids (lb)	7.157	7.195	7.155
Sensible to Ice (Btu)	365	367	365
Sensible to Water (Btu)	2,883	2,952	2,916
Sensible to Fat (Btu)	370	377	373
Sensible to Solids (Btu)	227	231	229
Latent – Water Fusion (Btu)	3,282	3,300	3,281
Latent – Fat Fusion (Btu)	239	238	238
Latent – Heat of Vaporization (Btu)	9,743	9,667	9,585
Total Energy to Food (Btu)	17,109	17,133	16,987
Energy To Food (Btu/lb)	478	476	475
Total Energy to Griddle (Btu)	22,014	22,014	22,526
Energy to Griddle (Btu/lb)	615	612	630
Cooking-Energy Efficiency (%)	77.7	77.8	75.4
Cooking Energy Rate (kW)	5.41	5.37	5.38
Production Rate (lb/h)	30.0	29.9	29.2
Average Recovery Time (min)	3.85	3.77	4.01

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