



## Standard Test Method for Performance of Self-Serve Hot Deli Cases<sup>1</sup>

This standard is issued under the fixed designation F2141; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 This test method evaluates the energy consumption and performance of self-serve hot deli cases. The food service operator can use this evaluation to select a deli case and understand its energy consumption and performance.

1.2 This test method is applicable to electric, fully open or partially open, hot deli cases that have been designed to hold and merchandise prepackaged hot food. For staff-serve hot deli cases, refer to Test Method [F2472](#).

1.3 The deli case can be evaluated with respect to the following (where applicable):

- 1.3.1 Energy input rate ([10.2](#)),
- 1.3.2 Energy and temperature at the minimum setting ([10.3](#)),
- 1.3.3 Energy and temperature at the maximum setting ([10.3](#)),
- 1.3.4 Energy and temperature at the manufacturer's recommended setting ([10.3](#)),
- 1.3.5 Holding capacity ([10.4](#)),
- 1.3.6 Holding temperature calibration ([10.4](#)),
- 1.3.7 Preheat energy rate ([10.5](#)),
- 1.3.8 Idle energy rate ([10.6](#)), and
- 1.3.9 Holding energy rate ([10.7](#)).

1.4 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.5 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

### 2. Referenced Documents

#### 2.1 *ASTM Standards*:<sup>2</sup>

[A36/A36M](#) Specification for Carbon Structural Steel  
[F2472](#) Test Method for Performance of Staff-Serve Hot Deli Cases

### 3. Terminology

3.1 *calibrated temperature, n*—temperature setting at which the lowest temperature of the water in the holding pans is at  $142 \pm 2^\circ\text{F}$  ( $61 \pm 1^\circ\text{C}$ ).

3.2 *capacity, n*—the amount of  $\frac{1}{2}$  size containers the deli case will hold in a single layer at one time.

3.3 *deli case, n*—an appliance designed for the display of hot food product.

3.4 *energy input rate, n*—peak rate at which a deli case consumes energy (kW), typically reflected during preheat.

3.5 *factory setting, n*—recommended control setting by the manufacturer.

3.6 *holding energy, n*—energy consumed by the deli case as it is used to hold cooked food product under full load conditions.

3.7 *holding energy rate, n*—average rate of energy consumption (kW) during the holding energy tests.

3.8 *idle energy rate, n*—the rate of energy consumed (kW) by the deli case while “holding” or maintaining the heated surface at the thermostat set point.

3.9 *maximum setting, n*—setting at which maximum surface temperature is achieved.

3.10 *minimum setting, n*—setting at which minimum surface temperature is achieved.

3.11 *preheat energy, n*—amount of energy consumed by the deli case while preheating the heated surface from ambient room temperature ( $75 \pm 5^\circ\text{F}$  ( $24 \pm 3^\circ\text{C}$ )) to a temperature at the calibrated setting.

3.12 *preheat rate, n*—average rate ( $^\circ\text{F}/\text{min}$  ( $^\circ\text{C}/\text{min}$ )) at which the deli case's holding surface is heated from ambient

<sup>1</sup> This test method is under the jurisdiction of ASTM Committee [F26](#) on Food Service Equipment and is the direct responsibility of Subcommittee [F26.06](#) on Productivity and Energy Protocol.

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<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.