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Standard Terminology Relating to Microwave Food Packaging[1]

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1. Scope

1.1 This document contains definitions of technical terms used when evaluating microwave food packaging.

1.2 Terms that are generally understood or adequately defined in other sources are not included.

2. Referenced Documents

2.1 *ASTM Standards:* [2]

F 874 Test Method for Temperature Measurement and Profiling for Microwave Susceptors

F 1308 Test Method for Quantitating Volatile Extractables in Microwave Susceptors Used for Food Products

F 1317 Test Method for Calibration of Microwave Ovens

F 1349 Test Method for Nonvolatile Ultraviolet (UV) Absorbing Extractables from Microwave Susceptors

F 1500 Test Method for Quantitating Non-UV-Absorbing Nonvolatile Extractables from Microwave Susceptors Utilizing Solvents as Food Simulants

F 1519 Test Method for Qualitative Analysis of Volatile Extractables in Microwave Susceptors Used to Heat Food Products

3. Definitions

dual ovenable—terms describing a food packaging container used to prepare food in either a conventional oven or a microwave oven.

fluoroptic temperature measurement—temperature measurement based on the variation in total luminescence of a fluoroptic phosphor which has been previously calibrated versus a known temperature standard.

food simulant—a well-characterized substance used in place of food for investigative studies.

functional barrier—*in food packaging*, a material that effectively restricts passage of solids, liquids, semi-solids, vapors, or forms of energy such as ultraviolet light through itself, across its borders, or interface with another material or substance.

load (water load)—an amount of water used to moderate the microwave radiation absorbed by a susceptor during simulated microwave heating tests.

microwave extraction cell—a polytetrafluoroethylene cell used for evaluating microwave active materials. Refer to Test Method F 1349 for schematics of cell construction.

microwave only food package—a container used to heat foods only in a microwave oven.

microwave susceptor—packaging material that, when placed in a microwave field, is designed to interact with the field and provide substantial heat to the package contents.

nonvolatile extractables—those chemical species which are released from microwave food packaging under simulated use conditions and are detected using an applicable nonvolatile extractables method.

package—a container providing protection to a product during distribution, storage, retailing, and use.

volatile extractables—those chemical species which are released in the vapor state from microwave food packaging under simulated use conditions and are detected using an applicable volatile extractables method.

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[1] This terminology is under the jurisdiction of ASTM Committee F02 on Flexible Barrier Materials and is the direct responsibility of Subcommittee F02.50 on Package Design and Development.

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