



Standard Terminology Relating to Microwave Food Packaging¹

This standard is issued under the fixed designation F 1479; 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 (ϵ) indicates an editorial change since the last revision or reapproval.

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:

F 874 Test Method for Temperature Measurement and Profiling for Microwave Susceptors²

F 1308 Test Method for Quantitating Volatile Extractables in Microwave Susceptors Used for Food Products²

F 1317 Test Method for Calibration of Microwave Ovens²

F 1349 Test Method for Nonvolatile Ultraviolet (UV) Absorbing Extractables from Microwave Susceptors²

F 1500 Test Method for Quantitating Non-UV-Absorbing Nonvolatile Extractables from Microwave Susceptors Utilizing Solvents as Food Simulants²

F 1519 Test Method for Qualitative Analysis of Volatile Extractables in Microwave Susceptors Used to Heat Food Products²

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.

¹ This terminology is under the jurisdiction of ASTM Committee F02 on Flexible Barrier Materials and is the direct responsibility of Subcommittee F02.30 on Test Methods.

Current edition approved Oct. 10, 1998. Published March 1999. Originally published as F 1479 – 93. Last previous edition F 1479 – 94.

² *Annual Book of ASTM Standards*, Vol 15.09.

This standard is subject to revision at any time by the responsible technical committee and must be reviewed every five years and if not revised, either reapproved or withdrawn. Your comments are invited either for revision of this standard or for additional standards and should be addressed to ASTM International Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend. If you feel that your comments have not received a fair hearing you should make your views known to the ASTM Committee on Standards, at the address shown below.

This standard is copyrighted by ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959, United States. Individual reprints (single or multiple copies) of this standard may be obtained by contacting ASTM at the above address or at 610-832-9585 (phone), 610-832-9555 (fax), or service@astm.org (e-mail); or through the ASTM website (www.astm.org).