



Household Electric Ranges

AHAM ER-1-2017



1111 19th Street NW > Suite 402 > Washington, DC 20036

f 202.872.9354 www.aham.org

This is a preview. [Click here to purchase the full publication.](#)

PREFACE

The Association of Home Appliance Manufacturers develops standards in accordance with AHAM's "Policy and Procedures Governing Technical Standards" which states:

"AHAM Standards shall be in the best interest, mutually, of consumers who use appliances, the industries which provide and service appliances, and other interested parties. They shall relate to actual use conditions, be technically and scientifically sound."

Use or observance of AHAM standards is voluntary.

This standard contains

Test procedures that may be applied to any brand or model of household electric range for measuring performance. Results of tests in accordance with this standard may be publicly stated.

Recommended levels of performance which are considered important to include but which, necessarily, are recommendations only.

With regard to safety, AHAM recommends that all appliance products--both major and portable--manufactured or marketed in the United States be submitted to an appropriate independent laboratory for inspection and listing in conformance with the safety standards and procedures followed by such laboratories. The relevant standard for electric ranges is ANSI/UL 858, "Standard for Safety, Household Electric Ranges."

AHAM welcomes comments and suggestions regarding this standard. Any standard may be reviewed and improved as needed. Any interested party, at any time, may request a change in an AHAM standard. Such request should be addressed to AHAM's President, and should be accompanied by a statement of reason for the request and a suggested alternate proposal.

Copyright © 2017 by the Association of Home Appliance Manufacturers (AHAM)
All rights reserved.

The hard copy print version of this document shall be for individual use only.

The electronic file version of this document shall be for storage on one computer for purposes of viewing and/or printing one copy for individual use only.

This document shall not be reproduced in whole or in part by any means, and shall not be transmitted electronically or otherwise to a third person without the prior written permission of AHAM.

CONTENTS

Section	Page
1. PURPOSE	1
2. SCOPE.....	1
3. DEFINITIONS.....	1
3.1. Definitions of Operations Performed on Range Products	1
3.2. Definitions of Range Products and Accessories.....	2
3.3. Test Definitions	3
3.4. Definitions of Functional Components	4
3.5. Materials Definitions.....	5
3.6. Miscellaneous Definitions.....	5
4. VOLTAGES	6
4.1. Rated Voltage.....	6
4.2. Range of Operating Voltages.	6
5. GENERAL TEST CONDITIONS, EQUIPMENT AND INSTRUMENTATION	6
5.1. Supply Circuit.	6
5.2. Test Circuit Voltage.....	6
5.3. Electrical Measurements.	6
5.4. Temperature Measurements.....	7
5.5. Scale.	7
5.6. Installation.	7
5.7. Test Equipment.....	7
6. CONVENTIONAL COOKING TOPS - TEST METHOD FOR MEASURING PERFORMANCE CHARACTERISTICS	9
6.1. Conventional Cooking Tops - Test Method for Measuring Efficiency	9
6.2. CONVENTIONAL COOKING TOPS - TEST METHOD FOR DETERMINING THERMAL ENDURANCE CHARACTERISTICS OF COOKTOP HEATING UNITS.....	9
7. GRIDDLES - TEST METHOD FOR MEASURING PERFORMANCE CHARACTERISTICS	10
7.1. Test Procedure.....	10
7.2. Recommended Level of Performance.	10
8. CONVENTIONAL OVENS - TEST METHOD FOR MEASURING PERFORMANCE CHARACTERISTICS...	10
8.1. Setting the Conventional Oven Thermostat.	10
8.2. Test Method for Determining Energy Efficiency in the Bake Mode	11
8.3. Test Method for Determining Baking/Browning Performance	13
8.4. Test Method for Determining Broiler Heat Distribution	15
8.5. Test Method for Determining Energy Consumption of the Pyrolytic Self-Cleaning Mode of Conventional Ovens	16
8.6. Test Method for Measuring the Cleaning Performance of the Conventional Oven Pyrolytic Self-Cleaning Mode.....	16
8.7. Test Method for Determining the Endurance Characteristics of Conventional Electric Ovens.....	18

9.	TEST METHODS FOR EVALUATING STRUCTURAL CHARACTERISTICS OF ELECTRIC RANGE COMPONENTS.....	19
9.1.	Test Method for Evaluating Structural Characteristics of Cooking Top.....	19
9.2.	Test Method for Evaluating Structural Characteristics of Glass/Ceramic Cooking Tops.....	20
9.3.	Test Method for Evaluating Structural Characteristics of Oven Doors.....	20
9.4.	Test Method for Evaluating Structural Characteristics of Oven Racks	21
9.5.	Test Method for Evaluating the Horizontal Positioning of the Oven Compartment.....	22
10.	SUGGESTED GUIDELINES FOR USE AND APPLICATION OF MATERIALS AND FINISHES.....	22
10.1.	Materials and Finishes Applicable to Cooktops and Oven Linings.	22
10.2.	Materials and Finishes Applicable to Unexposed Surfaces of Cooktops and Oven Linings.	22
10.3.	Materials and Finishes Applicable to All Other Range Parts.....	22
10.4.	Materials and Finishes Applicable to Unexposed Surfaces of All Other Range Parts.	23
11.	SUGGESTED GUIDELINES FOR INSTALLATION AND SERVICING AIDS.....	23
11.1.	Electrical Schematic Diagrams.	23
11.2.	Standard Space Dimensions for Free-Standing Range Connections.....	23
12.	SAFETY CHARACTERISTICS AND TESTS	23
	APPENDIX A.....	24
	APPENDIX B	25
	APPENDIX C	26
	APPENDIX D.....	27
	APPENDIX E	28
	APPENDIX F	29
	APPENDIX G.....	30