



Household Tumble Type Clothes Dryers

ANSI/AHAM HLD-1-2010



Leadership > Knowledge > Innovation

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 and written to be understood by non-technical persons."

Use or observance of AHAM standards is voluntary.

AHAM standards are presented to the American National Standards Institute (ANSI) for recognition as American National Standards. This standard was so recognized on June 11, 2010 and bears the American National Standard designation ANSI/AHAM HLD-1-2010.

This standard contains test procedures which may be applied to any brand or model of household tumble type clothes dryer for measuring performance. Results of tests in accordance with this standard may be publicly stated.

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 clothes dryers are ANSI/UL 2158, *Electric Home Clothes Dryers*, and ANSI Z21.5.1/CSA 7.1, *Gas Clothes Dryers - Volume I, Type I Clothes Dryers*.

AHAM's Home Laundry Engineering Committee recognizes that, as in all scientific work, and especially that applied to consumer products, there are certain technical limitations and pitfalls in interpretation which are easy to overlook. Users are urged to watch for these and send them to AHAM headquarters to be added to future editions.

Do not compare machines tested under unlike conditions unless differences are clearly stated.

Previous editions of this standard contained a Wrinkling Test for evaluating garment wrinkling in a finished dryer load. This test has been deleted from this edition. A new version of the Wrinkling Test will be developed for inclusion in the future.

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 © 2010 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. GENERAL CONDITIONS	1
4. MOISTURE REMOVAL	5
5. CLOTHES TEMPERATURE MEASUREMENT	7
6. SAFETY.....	10
Annex A (informative) SPECIFICATIONS FOR BASE LOAD	11
Annex B (informative) TEST MATERIALS.....	13
Annex C (informative) MAINTENANCE OF AGE PROFILE IN BASE LOAD.....	14
Annex D (informative) SAMPLE OF ELECTRIC DRYER CALCULATIONS	17
Annex E (informative) SAMPLE OF GAS DRYER CALCULATIONS	18
Annex F (informative) SAMPLE OF ELECTRIC DRYER CALCULATIONS.....	19
Annex G (informative) SAMPLE OF GAS DRYER CALCULATIONS.....	20
Annex H (informative) MOISTURE REMOVAL DATA SHEETS	21
Annex I PRE-TREATMENT AND NORMALIZATION.....	23

1. PURPOSE

This standard establishes a uniform, repeatable procedure or standard method for evaluating the performance of home laundry clothes drying equipment as indicated in Section 2.

The standard methods provide a means to compare and evaluate different brands and models of household clothes dryers regarding characteristics significant to product use.

The standard methods are not intended to inhibit improvement and innovation in product testing, design or performance.

2. SCOPE

This standard applies to home laundry clothes drying equipment and includes methods for testing and evaluating performance of home laundry equipment as defined in Section 3.1. Dryers operated for the regular use of more than one family are not included within the scope of this standard.

Dryers tested for comparison purposes are to have all deviations from specified test conditions clearly stated.

3. GENERAL CONDITIONS

3.1 Home Laundry Clothes Drying Equipment. For the purposes of this standard, home laundry clothes drying equipment is viewed as:

A power driven machine for drying fabrics by evaporation through the use of various combinations of heat, air flow and tumbling. Either electricity or gas may be used as the heat source. Dryer time may be controlled by operator pre-selection of the dryer time interval, or automatic control determined by measurements made by the machine.

3.2 Base Load. The base load is comprised of the bed sheets, pillow cases and hand towels specified in Annex A.

A base load should not be used interchangeably for both washer and dryer testing.

See Annex B for information pertaining to suppliers.

3.2.1 Usage. No item shall be used for more than 84 test cycles, not counting pre-treatment and normalization cycles.

To minimize the influence of aging of the textiles, the base load shall consist of sheets, pillowcases and hand towels of mixed age. The weighted average age of the load should be between 29 and 51 test cycles. Examples of how to create and maintain a mixed age load, and how the average age of a load may be estimated, are given in Annex C.

3.2.2 Load Weights. All weights are "bone dry" weights when base load is dried in accordance with Section 3.3.1. The "bone dry" weight must be determined after each nine test runs.

Minor variations in individual item weights may occur.

The assembled base load is weighed. If the measured weight differs from the desired weight by more than 0.125 lb (57 g), final adjustment of the base load weight is made by adding or removing hand towels as necessary.

Dryers may be tested for loads of any or all sizes.