



# MANUAL on SENSORY TESTING Methods



STP 434

American Society for Testing and Materials

# MANUAL ON SENSORY TESTING METHODS

Sponsored by  
ASTM Committee E-18 on  
Sensory Evaluation of Materials and Products  
AMERICAN SOCIETY FOR  
TESTING AND MATERIALS

ASTM Special Technical Publication 434



*published by the*  
AMERICAN SOCIETY FOR TESTING AND MATERIALS  
1916 Race Street, Philadelphia, Pa. 19103

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Library of Congress Catalog Card Number: 68-15545

ISBN 0-8031-0018-3

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Printed in Baltimore, Md.  
First Printing, May 1968  
Second Printing, May 1969  
Third Printing, November 1969  
Fourth Printing, April 1973  
Fifth Printing, January 1976  
Sixth Printing, September 1977  
Printed in Philadelphia, Pa.  
Seventh Printing, April 1982  
Eighth Printing, September 1984  
Ninth Printing, November 1986  
Printed in Baltimore, Md.  
Tenth Printing, July 1990

# Foreword

Sensory testing is concerned with measuring physical properties by psychological techniques. As part of the field of psychometrics, sensory methods are used for measurements that cannot be made directly by physical or chemical tests.

To conduct sensory tests may not seem particularly difficult to the layman, but it is not as easy as it seems. One cannot simply proceed by rote and expect to obtain meaningful and valid results. Such an approach makes it highly probable that the data developed will not reveal the true situation. It is necessary to be thoroughly familiar with the techniques available, to know when and how to use them, and to have a panel that has been carefully screened and trained.

This manual endeavors to guide the technical man who is not an expert in the field, but who is confronted with the need to conduct sensory tests. An attempt has been made to make the manual complete by including all relevant areas but without exploring each one fully. The main purpose is to show how to evaluate the properties of objects rather than to demonstrate the underlying theories.

Both general and specialized procedures are given which should be adequate for most situations encountered. Included are descriptions of basic techniques for discrimination and preference testing, the screening and training of panels, controls for test situations, when and where the different techniques should be applied, and basic guidance in the statistical analysis and interpretation of the results. Literature references are included for those interested in becoming familiar with the subject matter.

Although sensory testing techniques can be applied with all human senses, this manual is mainly restricted to the senses of taste and smell. Subsequent manuals are expected to be concerned with the other senses. Also, the examples usually are concerned with food products, primarily because the people who compiled the manual were food oriented. This does not imply that the techniques are applicable only to foods; they can be used wherever the senses of taste or olfaction are involved.

An effort has been made to organize the manual as simply as possible, yet without being unduly repetitive. Thus, relevant information in regard to a given topic, for example, a particular kind of test, might be found in all sections. Cross referencing has been used as an additional aid.

## **Related ASTM Publications**

**Basic Principles of Sensory Evaluation, STP 433  
(1968)**

**Correlation of Subjective-Objective Methods in the  
Study of Odors and Taste, STP 440 (1968)**

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