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Methods of test for

The assessment of odour from packaging materials used for foodstuffs

Co-operating organizations

The Packaging Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government departments and scientific and industrial organizations:

Association of British Chemical Manufacturers*	Fibreboard Packing Case Manufacturers' Association
Association of Steel Drum Manufacturers	Food Manufacturers' Federation
Board of Trade	Incorporated*
British Carton Association*	Glass Manufacturers' Federation*
British Jute Trade Federal Council*	Institute of Packaging*
British Paper Bag Federation*	Institution of Production Engineers
British Paper & Board Makers' Association (Incorporated)*	Ministry of Transport
British Paper Box Federation*	National Federation of Box & Packing Case Manufacturers
British Plastics Federation*	Packaging Films Manufacturers' Association*
British Railways Board	Paintmakers' Association of Great Britain
British Tin Box Manufacturers' Federation	Printing, Packaging & Allied Trades' Research Association*
Collapsible Tube Manufacturers' Association	Society of British Soap Makers
Crown Agents for Oversea Governments and Administrations	Society of Motor Manufacturers and Traders Ltd.
Envelope Makers' & Manufacturing Stationers' Association	

The industrial organizations marked with an asterisk in the above list together with the following were directly represented on the committee entrusted with the preparation of this British Standard:

Admiralty	Federation of Gelatine and Glue Manufacturers
Adhesives Manufacturers' Association	Food Machinery Association
Aluminium Federation	Ministry of Agriculture, Fisheries and Food
Association of Board Makers	Royal Association of British Dairy Farmers
Association of British Manufacturers of Printers' Machinery	Society of British Printing Ink Manufacturers
British Aluminium Foil Rollers' Association	Technical Section of the British Paper & Board Makers' Association
British Mechanical Engineering Federation	War Office
Cocoa, Chocolate and Confectionary Alliance Ltd.	
Cake & Biscuit Alliance Ltd.	

This British Standard, having been approved by the Packaging Standards Committee, was published under the authority of the General Council on 29 April 1964

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Foreword

The tests recommended in this British Standard were prepared at the request of the Institute of Packaging under the authority of the Packaging Standards Committee.

Odour is the sensation produced by the interaction of certain volatile materials with the sensory organs of the nose. Similarly taste is the sensation produced by the interaction of materials with the sensory organs of the tongue. The combined sensations of smell and taste are generally described by the term “flavour” and whenever a food possesses an “off flavour” due to acquiring adventitious substances it may be described as “tainted”. This British Standard is concerned with odour and flavour derived from volatile constituents contained in packaging materials.

Taint can also be caused by other means such as the extraction of nonvolatile constituents from packaging materials by direct contact with the food, but this standard is not concerned with any form of taint other than that produced by odorous volatile constituents in packaging materials.

The recognition of odour or taint is a subjective process occurring within the brain of an individual. Hence, they are not objective qualities, and cannot be assessed without the judgement of a human observer.

This position is akin to the recognition of colour which, too, is a subjective property, being the interpretation by the brain of differences in wavelength of light received in the retina of a human eye. It is possible to synthesize any desired colour by the proper mixture of light transmitted by colour filters of specific transmission characteristics and an elaborate system has been worked out which allows each colour to be represented in terms of three measurable parameters. The actual matching of an unknown colour with the colour mixture can be carried out by means of instruments so that a method of colour measurement is obtained which is as near as possible to an objective measurement. It permits, within certain limits, objective discussion and up to a point can obviate the need for individual judgement

At the present time odour and flavour are not amenable to such an approach. Much basic work will have to be done. It is possible that advances in analytical chemistry may provide a mechanism, but, before this can have a bearing on the matter, several psycho/physiological phenomena will have to be better understood than at present. Such phenomena as the change in nature of taste or odour with concentration of active material; the complex variations of strength of taste or odour with concentration of active material; the tastelessness of mixtures of materials which as individuals have well-defined tastes when tasted separately; the enhancing of the taste or odour of one material by small quantities of another, indicate how little the subject is understood today, and the difficulties confronting the devising of an objective assessment.

It cannot be emphasized too strongly that sensory tests must by definition form the basis of all odour assessment and that objective procedures can take over only when their interpretation has been established by subjective odour or taste assessments.

NOTE Where metric equivalents have been given the figures in British units are to be regarded as the standard. The metric conversions are approximate. More accurate conversions should be based on the tables in BS 350, “*Conversion factors and tables*”.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

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Summary of pages

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This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.