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Specification for

Abrasive papers and cloths

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British Electrical and Allied Manufacturers' Association (BEAMA)	Health and Safety Executive
British Gas Corporation	Institution of Gas Engineers
British Gear Manufacturers' Association	Institution of Mechanical Engineers
British Internal Combustion Engine Manufacturers' Association	Institution of Plant Engineers
British Pump Manufacturers' Association	Institution of Production Engineers
British Steel Corporation	Lloyd's Register of Shipping
British Steel Industry	London Transport Executive
Cbmpe	Machine Tool Industry Research Association*
Chartered Institution of Building Services	Ministry of Defence
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Department of Industry (Mechanical Engineering)	Oil Companies Materials Association
Department of Industry (National Engineering Laboratory)	Process Plant Association
Department of the Environment (PSA)	Society of Motor Manufacturers and Traders Limited
	Telecommunication Engineering and Manufacturing Association (TEMA)
	Water-tube Boilermakers' Association

The organization marked with an asterisk in the above list, together with the following, was directly represented on the Technical Committee entrusted with the preparation of this British Standard:

British Paper and Board Industry Federation (PIF)	Furniture Industry Research Association
Coated Abrasives Manufacturers' Association	Individual manufacturer

This British Standard, having been prepared under the direction of the Mechanical Engineering Standards Committee, was published under the authority of the Executive Board and comes into effect on 30 October 1981

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Foreword

This British Standard combines BS 871 “*Abrasive papers and cloths for general purposes*” and BS 872 “*Abrasive papers and cloths (technical products)*” and has been prepared under the direction of the Mechanical Engineering Standards Committee following a review of present day requirements. It constitutes a second (metric) revision of both BS 871 and BS 872. BS 872:1965 is now withdrawn.

This standard covers what are known in the trade as “technical products”, i.e. abrasive papers and cloths for engineering purposes, woodworking, rubbing down filler surfaces, paint and lacquer surfaces, and general utility work, and also specifies abrasive papers and cloths for general purposes. The specification for flint paper has been deleted from the original BS 871 as no British manufacturer now offers this product due to the severely hazardous nature of the flint dust created during the abrading process.

The performance of abrasive papers and cloths can be affected by many factors, such as the nature of the material being worked, the relative speeds of the paper or cloth to which they are applied, the degree of pressure exerted, the temperature and humidity conditions, the use of lubricants, etc. Appendix E gives recommendations for storage conditions.

A method of test to evaluate the metal removal properties of aluminium oxide metalworking cloth and emery cloth has been developed by the Coated Abrasives Manufacturers’ Association (CAMA) and this has been incorporated in Appendix B of this standard. This test method is designed to establish minimum standards of work to be expected from the initial performance of a particular type of coated abrasive, when subjected to a standard test under specified conditions. This enables both manufacturers and users to verify the efficiency of the processing methods employed in the manufacture of the product, in addition to the normal assessment of a given product by reference to the quality of the raw materials used. It obviates the need for individual users to devise differing methods of test, wherever the performance required by this standard provides a sufficient guarantee.

The possibility of developing tests for the other coated abrasive products included in this standard was reconsidered, but the industry again found that the difficulty in obtaining test pieces of materials such as wood and leather of consistent standard precluded any such tests being established.

The aluminium oxide and silicon carbide abrasive papers and cloths included in section 2 of this standard are manufactured with abrasive grains in accordance with the “P” Series of the Grain Size Standard published by FEPA¹⁾ in 1971, copies of which may be obtained from CAMA²⁾. Methods of test are detailed in the FEPA standard, including a method for removal of grain from a coated abrasive product.

The garnet coated abrasive products included in section 2 of this standard are manufactured with grain conforming to the USA Standard, ANSI B74.18:1977.

Appendix F gives a recommended ordering form.

International cooperation in the work of standardization of surface coated abrasives is restricted at present to that being undertaken by most European and some North American manufacturers under the auspices of FEPA. The UK is represented in this work by representatives of CAMA.

NOTE 1 For the purpose of this British Standard, 1 ream = 500 sheets of size 230 mm × 280 mm.

NOTE 2 The term “substance” used in the 1961 edition of BS 871 and the 1965 edition of BS 872 to denote mass per unit area of paper backing has been replaced in this revision by “grammage” in line with current usage.

¹⁾ Federation of European Producers of Abrasive Products.

²⁾ Coated Abrasive Manufacturers’ Association, 102 Gloucester Road, Hampton-on-Thames, Middlesex.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 12, an inside back cover and a back cover.

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.

