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Specification for

Abrasive papers and cloths

Spécification pour les papiers et toiles abrasifs

Spezifikation für Schmirgelpapier und -leinwand

British Standards Institution

Contents

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 BS 872 : 1965 is now withdrawn.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 two of this standard are manufactured with abrasive grains in accordance with the 'P' Series of the Grain Size Standard published by FEPA† in 1971, copies of which may be obtained from CAMA*. 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 two 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.

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†Federation of European Producers of Abrasive Products.