

Specification for

Adhesives for hanging flexible wallcoverings

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Cooperating organizations

The Adhesives Standards Committee, under whose direction this British Standard was prepared, consists of representatives from the following:

- Association of British Plywood and Veneer Manufacturers
- British Adhesive Manufacturers' Association*
- British Bag Federation
- British Furniture Manufacturers' Federated Associations
- British Plastics Federation
- British Woodworking Federation
- Department of the Environment — Building Research Establishment
- Department of the Environment — Building Research Establishment, Princes Risborough Laboratory
- Department of Trade
- Federation of Gelatine and Glue Manufacturers Limited*
- Ministry of Defence
- Royal Institute of British Architects
- Society of Chemical Industry
- Wallcoverings Manufacturers' Association of Great Britain Ltd.*

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

- British Association Wallcovering Merchants
- British Decorators Association
- Builders Merchants Federation
- Consumer Standards Advisory Committee of BSI
- National Association of Wholesale Paint Merchants
- Wallpaper Paint and Wallcovering Retailers Association

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

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Foreword

This British Standard has been prepared under the direction of the Adhesives Standards Committee by a Technical Committee of representatives of adhesive manufacturers, and manufacturers and users of wallcoverings. This standard supersedes BS 3046:1958 which is therefore now withdrawn. Work on this standard was instigated by the committee classifying building adhesives in general. It recognizes that the performance requirements for adhesives intended for flexible wallcoverings supplied in roll form for application to walls or ceilings are different from those for adhesives for rigid panels, etc.

The revision recognizes the increasing diversity of types of wallcoverings and ceiling coverings and the use of bases other than paper. Therefore, five types of adhesive are specified in this standard to enable satisfactory performance to be obtained with a wide range of wallcoverings.

As far as possible, the requirements of the materials are specified in terms of performance tests. This division into types will enable wallcovering and ceiling covering manufacturers to make recommendations on the appropriate type or types of adhesive, thus giving more precise guidance to users than hitherto was the case. In order to obtain reproducible results, most of the tests are based on the use of standardized wallpaper test base.

It is appreciated that the marking and tarnishing tests are subjective, but attempts to find a more objective approach have not been successful. It is hoped that work will continue to develop a less subjective approach which could be included in this standard by amendment or revision.

WARNING NOTE. The test methods in this British Standard do not necessarily detail all the precautions necessary to meet the requirements of the Health and Safety at Work etc. Act 1974. Attention should be paid to any appropriate safety precautions and the methods should be operated only by trained personnel.

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.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 14, 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.

1 Scope

1.1 This British Standard specifies the requirements for adhesives suitable for hanging flexible wallcoverings and ceiling coverings supplied in roll form, having a total grammage (see BS 3432) below 500 g/m². Five types of adhesive are specified to enable the wallcovering manufacturer or other user to recommend the preferred type or types for a given wallcovering.

Type 1. For use as a low solids adhesive with easy slip showing very low marking and very low tarnishing; especially suitable for light grammage wallcoverings.

Type 2. Normally used as a medium solids adhesive, showing low marking and low tarnishing; suitable for wallcoverings of all grammages and also for previous, washable wallcoverings.

Type 3. Adhesive with good wet adhesion, particularly suitable for wallcoverings of heavy grammages and also for previous, washable wallcoverings.

Type 4. Adhesive containing fungicide to inhibit mould growth (mould resistant), suitable for impervious wallcoverings of all grammages.

Type 5. High wet adhesion, high dry strength adhesive, containing fungicide to inhibit mould growth (mould resistant), suitable for most impervious wallcoverings or special applications, often ready-mixed.

1.2 This standard is applicable to adhesives supplied either in powder form or ready-mixed. The prepared adhesive (see clause 7) may be applied by the decorator either to the wallcovering or to the wall or ceiling surface, according to instructions supplied by the manufacturer of the wallcovering.

NOTE 1 Certain requirements of this standard may also be applicable to ready-pasted wallcoverings.

NOTE 2 Although the inclusion of a fungicide in types 4 and 5 adhesives is mandatory, it may also be included in adhesives of types 1, 2 and 3.

2 References

The titles of the publications referred to in this standard are listed on the inside back cover.

3 Definition

For the purposes of this British Standard, the following definition applies.

3.1

prepared adhesive

the adhesive prepared for use in accordance with the adhesive manufacturer's instructions

4 Labelling

Each package of adhesive as sold shall be marked with the following information.

- The name of the manufacturer or distributor.
- The number of this British Standard, i.e. BS 3046¹⁾.
- The type designation of the adhesive, e.g. type 1.
- If the adhesive is mould resistant (see clause 15), e.g. type 4 or type 5, the words "mould resistant".
- If the material contains any toxic or harmful ingredients, an appropriate cautionary note on the label.
- Instructions for the preparation, coverage and use of the adhesive.

5 Harmful effects

The material shall have no harmful effects when used according to the adhesive manufacturer's instructions.

If preservatives are used in the manufacture of the adhesive, these shall be of minimum toxicity.

6 Storage

Three unopened packages shall be stored, one at each of the following test conditions:

- 3 ± 2 °C and a relative humidity of less than 50 % for 12 months;
- 23 ± 1 °C and a relative humidity of 50 ± 2 % for 12 months;
- 40 ± 1 °C and a relative humidity of 88 ± 2 % for 1 month.

After storing, the prepared adhesive from each package shall comply with the requirements of clause 5 and clauses 7 to 16.

¹⁾ Marking BS 3046 on or in relation to a product is a claim by the manufacturer that the product has been manufactured in accordance with the requirements of the standard. The accuracy of such a claim is therefore solely the manufacturer's responsibility. Enquiries as to the availability of third party certification to support such claims should be addressed to the Director, British Standards Institution, Maylands Avenue, Hemel Hempstead, Herts HP2 4SQ in the case of certification marks administered by BSI or to the appropriate authority for other certification marks.

7 Preparation

7.1 Powder. When the adhesive is prepared in accordance with the adhesive manufacturer's instructions, it shall mix readily and produce a paste free from lumps.

7.2 Ready-mixed. The adhesive shall be a paste, free from lumps and capable of being diluted readily if water is added as recommended.

7.3 Prepared adhesive. The prepared adhesive shall not vary substantially in consistency if slightly more or less than the recommended proportion of water is incorporated.

8 Pot life

When the prepared adhesive is tested in the manner described in Appendix A it shall show no spoilage within seven days.

9 Coverage

When the prepared adhesive is applied according to the adhesive manufacturer's instructions and using the wallcovering stated on the package and normal pasting techniques, the area of coverage as given on the package shall be readily achieved.

10 Open time

When the prepared adhesive is tested in the manner described in Appendix B, on all three test strips the fold of the paper shall be easily and completely separated after the times specified below, with an overall continuous layer of adhesive remaining on the pasted side of each of the test strips:

Type 1	15 min
Type 2	25 min
Type 3	25 min
Type 4	25 min
Type 5	15 min

11 Slip

When the prepared adhesive is tested in the manner described in Appendix C, the average reading shall be less than the following:

Type 1	150 g
Type 2	250 g
Type 3	300 g
Type 4	300 g
Type 5	600 g

12 Wet adhesion

When the prepared adhesive is tested in the manner described in Appendix D, with the distance BB selected according to the type of adhesive as follows, all three test strips shall show not more than 5 mm movement of the line of separation within 30 s.

Type 1	150 mm
Type 2	200 mm
Type 3	250 mm
Type 4	250 mm
Type 5	350 mm

13 Marking

When the prepared adhesive of either type 1 or type 2 is tested in the manner described in Appendix E, no test strip shall show any worse marking than the appropriate standardized adhesive paste.

14 Tarnishing

When the prepared adhesive of either type 1 or type 2 is tested in the manner described in Appendix F, no test strip shall show any worse tarnishing than the appropriate standardized adhesive paste.

15 Mould resistance

The prepared adhesive of either type 4 or type 5 (or any other adhesive claimed to be mould resistant), when tested in the manner described in Appendix G, shall not show greater mould growth than the standardized adhesive.

16 Dry adhesion

When the prepared adhesive is tested in the manner described in Appendix H, none of the test strips shall be removable without causing paper delamination or tearing.