



BS 1204 : Part 1 : 1979

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Synthetic resin adhesives (phenolic and aminoplastic) for wood

Part 1. Specification for gap-filling adhesives

Adhésifs à résine synthétique (phénolique et aminoplaste) pour le bois
Partie 1. Spécification pour adhésifs à remplissage des interstices

Kunstharz-Klebstoffe (Phenoplast und Aminoplast) für Holz
Teil 1. Spezifikation für Fugenklebstoffe

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Foreword

This British Standard has been prepared under the direction of the Adhesives Standards Committee. This revision is technically similar to the 1964 edition but fully metricates that edition. The standard was amended in 1990 to align the definitions of phenolic resins and aminoplastic resins with definitions in other British Standards, and to correct arithmetical errors introduced when the 1964 edition was metricated. This standard is designed to cover gap-filling adhesives and is primarily intended for the use of manufacturers and others who require means of assessing or controlling the

quality of phenolic and aminoplastic adhesives. In this revision the basis of classification adopted in the 1964 edition has been retained.

Adhesives intended solely for close-contact purposes are dealt with in Part 2 of this standard. Adhesives for the manufacture of plywood are dealt with in BS 1203.

It is current practice, in British Standard specifications concerned with wood products bonded with synthetic resin adhesives, to classify the durability of the joint in terms of its resistance to breakdown under various natural conditions of exposure; data on these have been obtained over a number of years. The results of these long-term trials have been linked with the behaviour of standard test pieces when these are immersed in cold, hot or boiling water or in steam, and such tests are the distinguishing requirements of these specifications.

The same basis of classification has been adopted in Parts 1 and 2, and the requirements and methods of test relating to close-contact joints in Part 1 apply also to Part 2.

The designations of the four types of synthetic resin adhesives specified in this British Standard (WBP, BR, MR and INT) are derived partly from the known degrees of durability and partly from the kind of test employed in this Part of BS 1204 (see clause 4).

The various wet tests have been devised solely to differentiate between the types and have proved adequate for this purpose for the phenolic and aminoplastic resins with which this British Standard is concerned. With resins of other chemical formulations, compliance with the test requirements would not necessarily indicate equal durability, and confirmation of type grouping by actual

service trials would be required.

Adhesives covered by this Part of BS 1204 are intended for the manufacture of wooden structures or assemblies which are of many forms and sizes and employ a wider range of timbers. It would be advantageous to prescribe testing methods that would predict the bond quality of the joints actually used, but this is not possible within the compass of the present standard.

The purpose of this Part of BS 1204 is to provide a standard against which adhesives of a given type can be tested and which can be used to check the quality of the adhesive. The standard timber, European beech (*Fagus sylvatica*)*, is eminently suitable for discriminatory testing work. Compliance of an adhesive with the requirements of this Part of BS 1204 should not, however, be taken as a guarantee that it will be equally satisfactory for use in all types of joints or with all species of timber.

Part 2 of this British Standard deals with close-contact adhesives which are suitable only where a bond-line not exceeding 0.15 mm can be obtained with certainty. Adhesives meeting the requirements of this Part will also meet the requirements of Part 2. It is now considered that gap-filling adhesives are more suitable for use in structures and assemblies, as thin bond-lines, although desirable, cannot always be obtained with certainty. For testing purposes, however, close-contact joints have been retained in addition to gap joints.

The previous requirement that cold-setting adhesives should be supplied unless otherwise specified has been omitted in this revision. This Part of BS 1204 applies equally to cold-setting, warm-setting and hot-setting adhesives and the type to be supplied is a matter for agreement between the purchaser and the vendor.

IMPORTANT NOTE. A manufacturer may authorize the use of extenders with the adhesive, and such an addition may be found, on retesting the mix, to change the characteristics or type (see clause 4) from that of the resin/hardener mix as supplied. Manufacturers should give guidance on this matter and users should not increase the amount of extender beyond that recommended.

*See BS 881.

