

Specification for

Decorative continuous laminates (DCL) based on thermosetting resins

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Plastics Standards Policy Committee (PLM/-) to Technical Committee PLM/41, upon which the following bodies were represented:

- Association of Suppliers to the Furniture Industry Ltd.
- British Laminated Plastics Fabricators Association Ltd.
- British Plastics Federation
- Fibre Building Board Organization
- Fibre Cement Manufacturers Association Limited
- Furniture Industry Research Association
- Society of Motor Manufacturers and Traders Ltd.
- Standards Association of Australia
- United Kingdom and Ireland Particleboard Association

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Foreword

This British Standard was prepared under the direction of the Plastics Standards Policy Committee, from an initial draft submitted by the Furniture Industry Research Association. It provides performance specifications for continuous laminates which may be produced at lower pressures than the laminates described in BS 3794-1.

Appendix A has been included to advise users of potential problems in dry air conditions.

Attention is also drawn to BS 3794-2, which is related to ISO 4586-2, and contains many of the test methods used in this standard.

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 8, 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.

0 Introduction

Decorative, continuous laminates (DCL) are characterized by their decorative surfaces, which are relatively hard wearing. They are available in standard, postformable and fire retardant grades. They are intended for interior applications and are supplied ready for use. They are made by continuous hot pressing. They are normally less than 1 mm in thickness, usually available in roll or sheet form, and are intended to be bonded to a supporting substrate. They have a single decorative face and the back surface is suitable for adhesive bonding to a substrate.

1 Scope

This British Standard specifies requirements for five types of decorative, continuous laminates (DCL) and gives a classification based on their performance and main applications.

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

2 Definition

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

decorative, continuous laminate (DCL)

a continuously manufactured sheet consisting of layers of fibrous sheet material (for example paper), impregnated with phenolic and/or aminoplastic and/or polyester thermosetting resins, assembled and bonded together by means of heat and pressure, the outer layer or layers on one side having decorative colours or designs

3 Classification

Decorative continuous laminates shall be classified according to class and type using the nomenclature given in Table 1.

Each category shall be designated, in the following order, by:

- a) one class symbol;
- b) one or two type symbols.

NOTE The relationships between the classification, performance categories and typical applications are given in Table 2.

4 Appearance

4.1 Colour matching

There shall be no significant difference between the supplier's master colour reference sample and the specimen under examination, when inspected under a tungsten illuminant, and in daylight or under a D6500 standard illuminant as specified in BS 950-1.

NOTE Since slight variations in colour will occur, it is recommended that sheets to be used side by side should be selected from the same production batch where possible and matched to ensure colour compatibility before fabrication or installation.

4.2 Surface finish

There shall be no significant difference between the supplier's master reference sample and the specimen under examination, when inspected at different viewing angles.

NOTE Since slight variations in surface finish will occur, it is recommended that sheets to be used side by side should be selected from the same production batch where possible and matched to ensure finish compatibility before fabrication or installation.

Table 1 — Classes and types of laminates

Components of classification	Symbol	Description
Class	G	General purpose
	L	Light duty
Type	S	Standard
	F	Flame retardant
	P	Postformable

4.3 Surface and edge defects

When inspected in accordance with clause 3 of BS 3794-2:1986 at a distance of 1.5 m, the levels of defects shall not exceed the following.

- a) *Spots, dirt and similar surface defects.* The total area of contamination (i.e. dirt, spots, etc.) in a cut sheet shall not exceed 0.8 mm² per square metre of sheet. No single spot shall exceed 2.5 mm², and where there are several spots on one sheet they shall not be grouped together in a small area.

NOTE A dirt examination chart, issued by the US Technical Association of the Pulp and Paper Industry (TAPPI)¹⁾, is a useful aid to estimating area of contamination.

- b) *Fibres, hairs, etc.* The total length of fibrous contamination shall not exceed 5 mm per square metre of sheet.

NOTE The contamination may be in the form of a single defect or made up of a number of smaller defects.

¹⁾ Obtainable from the Technical Association of the Pulp and Paper Industry, Technology Park, Atlanta, P.O. Box 105113, Atlanta, Georgia 30348-5113, U.S.A.