INTERNATIONAL STANDARD

ISO 2426-1

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Plywood — Classification by surface appearance —

Part 1: General

Contreplaqué — Classification selon l'aspect des faces —

Partie 1: Généralités

Reference number
ISO 2426-1:2000(E)

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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this part of ISO 2426 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 2426-1 was prepared by Technical Committee ISO/TC 89, *Wood-based panels*, Subcommittee SC 3, *Plywood*.

This first edition of ISO 2426-1, together with ISO 2426-2 and ISO 2426-3, cancels and replaces ISO 2426:1974, of which it constitutes a technical revision.

ISO 2426 consists of the following parts, under the general title *Plywood — Classification by surface appearance*:

— *Part 1: General*

— *Part 2: Hardwood*

— *Part 3: Softwood*

Plywood — Classification by surface appearance —

Part 1:
General

1 Scope

This part of ISO 2426 establishes general rules for the classification of plywood by its surface appearance.

It does not apply to overlaid plywood.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 2426. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 2426 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 2426-2, *Plywood — Classification by surface appearance — Part 2: Hardwood*.

ISO 2426-3, *Plywood — Classification by surface appearance — Part 3: Softwood*.

3 Classification by surface appearance

3.1 Classes

Classification of plywood by surface appearance is made according to the number and the extent of certain natural characteristics of wood and the defects that come from the manufacturing process.

Five appearance classes are distinguished, identified with the following codes: E, I, II, III, IV.

3.2 Characteristics and defects taken into consideration

3.2.1 Determination of appearance class

Determination of the appearance class, based on the appearance of the panel surfaces, shall take into account the categories of characteristics given in Table 1 and defects given in Table 2.

3.2.2 Characteristics inherent in wood

Categories of characteristics inherent in wood are listed in Table 1.

Table 1

Category		Type
3.2.2.1	Pin knots	
3.2.2.2	Sound intergrown knots	
3.2.2.3	a) Unsound knots b) Non-adhering and partially adhering c) Holes, except those due to insects, marine borers and parasitic plants	1) Dog holes 2) Knot holes
3.2.2.4	a) Splits b) Checks	1) Open 2) Closed
3.2.2.5	Abnormalities due to insects, marine borers and parasitic plants	1) Small worm holes 2) Large worm holes 3) Marine borer holes 4) Marks from parasitic plants
3.2.2.6	a) Resin pockets b) Resin streaks c) Inbark	
3.2.2.7	Irregularities in the structure of the wood[a]	1) Angle grain 2) Curly grain 3) Interlocked grain 4) Spiral grain
3.2.2.8	Discoloration which is not wood-destroying	1) Blue stain, mould and fungal discoloration 2) Coloured sapstain 3) False heartwood 4) Other discoloration such as chemical stain and colour streaks
3.2.2.9	Fungal decay which is wood-destroying	Rot
3.2.2.10	Other characteristics	To be considered under the category which they most closely resemble

[a] When irregularities of grain result in roughness, these shall be considered as one category of characteristics.

3.2.3 Manufacturing defects

Categories of manufacturing defects are listed in Table 2.

Table 2

Category		Type
3.2.3.1	Open joints	
3.2.3.2	Ovelaps	
3.2.3.3	Blisters	
3.2.3.4	a) Hollows b) Imprints c) Bumps	
3.2.3.5	Roughness, other than that due to irregularities in the structure of the wood	
3.2.3.6	Sanding through	
3.2.3.7	Glue penetration	
3.2.3.8	Foreign particles	Metal, mineral, etc.
3.2.3.9	Repairs	1) Patches 2) Shims 3) Synthetic fillers
3.2.3.10	Defects at the edges of the panel	1) Sanding defects 2) Sawing defects 3) Missing wood
3.2.3.11	Other defects	To be considered under the category which they most closely resemble

3.3 Classification by appearance of panels

The appearance class of plywood is determined by the classes of its surfaces.

The class of the plywood first describes the class of the face followed by the class of the back.

4 Rules for classification

4.1 Classification for hardwood and softwood

The permissible characteristics and defects for each of these appearance classes of this part of ISO 2426 are specified in ISO 2426-2 for hardwood and ISO 2426-3 for softwood.

4.2 Conditions of admissibility for inherent characteristics of wood, and manufacturing defects

4.2.1 General

Characteristics and defects which are limited in number, size, or extent are either enumerated or evaluated over the total surface of the panel. This number or extent is expressed par square metre of panel, with the exception of checks, splits and open joints which are related to one metre of panel width.

The number and the extent of characteristics and defects shall be defined as follows and rounded off to the nearest unit.

a) For knots and holes

   1) individual diameter;

   2) cumulative diameters, expressed per square metre of panel surface.

   NOTE The diameter of a knot or hole is conventionally defined as the diameter across the general direction of the grain of the veneer.

b) For checks, splits and open joints:

   1) individual length;

   2) individual width;

   3) number per metre of panel width.

4.2.2 Joints

In appearance classes I to IV, the number and the width of veneers which form the outer plies of a panel are not restricted, provided the joints are well made.

The veneers forming the outer plies of class I shall be well matched for colour and have similar grain.

The outer plies shall be laid with the joints approximately parallel to the edges of the panel.

In class E, the outer ply using rotary-cut veneer may be of one or two veneers provided that the joint is well made, approximately at the centre of the panel, approximately parallel to the edges of the panel and that the veneers are well matched for colour and of similar grain.

4.2.3 Inclusions

The inclusion of foreign particles likely to damage the machining equipment is not permitted.

4.2.4 Repairs

Patches and shims used for the repairs shall fit and be properly fixed. The matching for colour and grain shall be in accordance with the requirements for the appropriate appearance class.

Synthetic filling is permitted, subject to the appearance class requirement.