
INTERNATIONAL STANDARD



2427

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION · МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ · ORGANISATION INTERNATIONALE DE NORMALISATION

Plywood — Veneer plywood with rotary cut veneer for general use — Classification by appearance of panels with outer veneers of beech

Contreplaqué — Contreplaqué à plis, avec placages déroulés, pour usage général — Classification, selon l'aspect, des panneaux, à placages extérieurs de hêtre

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Descriptors : plywood, beech wood, classification, defects, visual inspection.

FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up has the right to be represented on that Committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 2427 was drawn up by Technical Committee ISO/TC 139, *Plywood*, and circulated to the Member Bodies in November 1971.

It has been approved by the Member Bodies of the following countries :

Australia	Iran	South Africa, Rep. of
Austria	Italy	Spain
Belgium	Netherlands	Sweden
Czechoslovakia	New Zealand	Thailand
Egypt, Arab Rep. of	Norway	United Kingdom
Germany	Poland	U.S.S.R.
Hungary	Portugal	Yugoslavia
India	Romania	

The Member Body of the following country expressed disapproval of the document on technical grounds :

France

Plywood – Veneer plywood with rotary cut veneer for general use – Classification by appearance of panels with outer veneers of beech

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1 SCOPE AND FIELD OF APPLICATION

This International Standard establishes the permissible defects for the classification by appearance of surfaces of general purpose veneer plywood¹⁾ with rotary cut outer veneers of beech.

NOTE – Species of beech wood used for this purpose are indicated in the annex.

2 REFERENCE

ISO 2426, *Plywood – Veneer plywood with rotary cut veneer for general use – General rules for classification by appearance.*

3 CLASSIFICATION BY APPEARANCE

3.1 Classification of panels by appearance according to the combination of the grades of their two surfaces should be carried out in accordance with ISO 2426.

3.2 The surface of the panels should be classified by appearance based on the permissible defects laid down in clause 4.

4 PERMISSIBLE DEFECTS

Each surface is individually classified in one of the grades E, I, II, III or IV as defined by the permissible defects indicated in the following table.

1) Defined in ISO 2074, *Plywood – Vocabulary.*

PERMISSIBLE DEFECTS

	Categories of defects		Grade						
			E	I	II	III	IV		
4.1.1	Pin knots		Practically without defects (see ISO 2426)	in number up to 3 per m ²		permitted without restriction			Veneers shall be free from rot and must be well glued. Defects inherent in wood and manufacturing defects are permitted provided they do not impair the mechanical properties and serviceability of the panel.
4.1.2	Sound intergrown knots			permitted up to an individual maximum diameter of 15 mm		30 mm	50 mm	without restriction	
				provided their cumulative diameter does not exceed 30 mm		60 mm	300 mm		
				per m ² . Such knots can have splits and stars provided they are					
				very slight	slight				
				and properly filled					
4.1.3	Unsound or non-adhering knots and holes		excluded		permitted up to a maximum individual diameter of 15 mm provided their cumulative diameter does not exceed 25 mm per m ²				
4.1.4	Irregularities in the structure of the wood		excluded		permitted if slight		permitted		
4.1.5	Splits and Checks	open	excluded		permitted, if properly filled, up to an individual maximum width of 3 mm and up to an individual maximum length of 250 mm and in number up to 3 per metre of panel width				
		closed	permitted : 2 of an individual maximum length up to 200 mm per metre of panel width		permitted				
4.1.6	Inbark		excluded		permitted : 2 of maximum length up to 20 mm and of maximum width up to 2 mm per m ²		permitted		
					if properly filled				
4.1.7	Defects due to borers and parasitic plants	small worm holes	excluded		permitted of diameter up to 3 mm		occasionally		
		— large worm holes, — marine borer holes, — marks of parasitic plants			excluded		unlimited		

PERMISSIBLE DEFECTS (concluded)

	Categories of defects	Grade					
		E	I	II	III	IV	
4.1.8	Sound discoloration	Practically without defects (see ISO 2426)	permitted if slight	permitted up to an extent of 25 % 70 % of the surface of panel provided the mechanical properties are not impaired		Veneers shall be free from rot and must be well glued. Defects inherent in wood and manufacturing defects are permitted provided they do not impair the mechanical properties and serviceability of the panel.	
4.1.9	Unsound discoloration and decay		excluded				
4.1.10	Open joints		excluded	permitted, if properly filled, of maximum width up to 1 mm 4 mm in number no more than 1 per metre of panel width			
4.1.11	Overlaps		excluded	permitted of a maximum length of 100 mm 300 mm and in number up to 1 per m ² 2 per m ²			
4.1.12	Blisters		excluded				
4.1.13	Hollows, bumps and imprints		excluded	permitted if very slight if slight			
4.1.14	Roughness		permitted if very slight	permitted if slight			
4.1.15	Sanding through		excluded		permitted up to an extent of 1 000 mm ² per m ² of panel surface		
4.1.16	Glue penetration		excluded	if slight and occasional	permitted up to an extent of 5 % of the panel surface		
4.1.17	Inserts — patch — shim		excluded	permitted, if properly made, up to a maximum number of 4 8 per m ² , not exceeding 2 % 5 % of total panel surface			
4.1.18	Inclusions of aluminium clips		excluded		permitted		
4.1.19	Defects at the edges of the panel due to — sanding or — sawing		—		permitted up to 5 mm 5 mm from the edge		
4.1.20	Other defects which are not indicated		To be considered under the heading of the category of defect most similar to it				

ANNEX

LIST OF THE DIFFERENT SPECIES OF BEECH USED FOR THE MANUFACTURE OF VENEER PLYWOOD

No.	Botanical name	Commercial name	Sources of supply
1	<i>Fagus grandifolia</i> EHRH	American beech	North America
2	<i>Fagus sylvatica</i> Linn.	European beech	Europe
3	<i>Fagus orientalis</i>	Kayim ag.	Asia Minor
4	<i>Fagus crenata</i>	Buna	Japan

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