

Grading Rules

Beech lumber, edged • NHLA standard



FAS

METRIC	
Length	≥ 2,45 m
Minimum width	≥ 150 mm

INCHES	
Length	≥ 8'
Minimum width	≥ 6"

Yield	≥ 83,33 %
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Top quality. Both sides suitable for the highest requirements.

FAS/1F

METRIC	
Length	≥ 2,45 m
Minimum width	≥ 150 mm

INCHES	
Length	≥ 8'
Minimum width	≥ 6"

Yield	≥ 83,33 %
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Better side top quality.

SEL BET

Graded same like FAS/F1 but in minimum 100 mm width and 1.85 m length.

METRIC	
Length	≥ 1,85 m
Minimum width	≥ 100 mm

INCHES	
Length	≥ 6'
Minimum width	≥ 4"

Yield	≥ 83,33 %
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No. 1 COM

METRIC	
Length	≥ 1,85 m
Minimum width	≥ 80 mm

INCHES	
Length	≥ 6'
Minimum width	≥ 3"

Yield	≥ 66,66 %
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High yield, guaranteed at medium and long lengths.

No. 2 COM

METRIC	
Length	≥ 1,85 m
Minimum width	≥ 80 mm

INCHES	
Length	≥ 6'
Minimum width	≥ 3"

Yield	≥ 50 %
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Beech lumber, unedged • EOS standard



A - grade

METRIC	
Length	≥ 2,10 m
Minimum width (thickness)	≤ 32 mm ≥ 100 mm > 32 mm ≥ 120 mm

INCHES	
Length	≥ 7'
Minimum width (thickness)	≤ 5/4" mm ≥ 4" > 5/4" mm ≥ 5"

B - grade

METRIC	
Length	≥ 2,10 m
Minimum width (thickness)	≤ 32 mm ≥ 100 mm > 32 mm ≥ 120 mm

INCHES	
Length	≥ 7'
Minimum width (thickness)	≤ 5/4" mm ≥ 4" > 5/4" mm ≥ 5"



C - grade

METRIC	
Length	90 % ≥ 2,10 m 10 % ≥ 1,80 m
Minimum width (thickness)	≤ 32 mm ≥ 100 mm > 32 mm ≥ 120 mm

INCHES	
Length	90 % ≥ 7' 10 % ≥ 6'
Minimum width (thickness)	≤ 5/4" mm ≥ 4" > 5/4" mm ≥ 5"

Red Heart

Same quality conditions as for C-grade, but red heart permitted.

If requested by the customer the red heart element will not be counted as a defect in the assessment of grade A, B and C.



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**BEECH LUMBER
FOR INTERIORS AND FURNITURE**



BEECH FOR INTERIOR FINISHING HOMELY AND PRESTIGIOUS



Beech is the all-rounder among the hardwoods. Used in the form of solid timber, veneer or plywood it is not only extremely strong but also easy to work.

Its high quality standard and characteristic color, solid beech wood is the ideal wood for interiors.

Stairs and flooring

Beech is hard, durable and resistant to wear, impact and pressure. This makes it the ideal species of wood for stairs and flooring. In fact, beech is suitable for every conceivable type of stairway, whether straight or spiral.

Beech is also a long-lasting wood for parquetry and wooden block floors. Be it in private, public or industrial buildings, floors made of beech are always the right choice.

Wall panels, fitted units and doors

The decorative beauty of beech is seen at its best on large areas. Wall and ceiling panels in beech are a long-lasting enhancement to the quality of interiors and homes. Doors and door frames made of beech always provide that special touch.

For individual fitted units, too, beech is the right choice. Partitions and shelving units, glass cabinets and bar tops made of beech are homely design elements of lasting value for residential and business interiors and wherever you want to make a good impression.

Surface treatment

Oil, varnish, stain, lacquer or paint – beech takes every kind of surface treatment, quickly and easily.

BEECH FOR INTERIOR FURNISHING ATTRACTIVE AND EASY TO CARE FOR

A major area of application for beech is furniture production. Beech in the form of solid timber, plywood, molded plywood and molded laminated timber is used in particular for manufacturing high-quality furniture.

Being hard and resistant, beech is a popular choice for furniture in schools, offices and children's rooms and for seating in all areas which are subject to particularly heavy use. Assembly rooms, concert halls, canteens, hotels and the catering trades are just a few examples.

Other kinds of furniture frequently made of beech include tables, beds and frames for upholstered furniture.

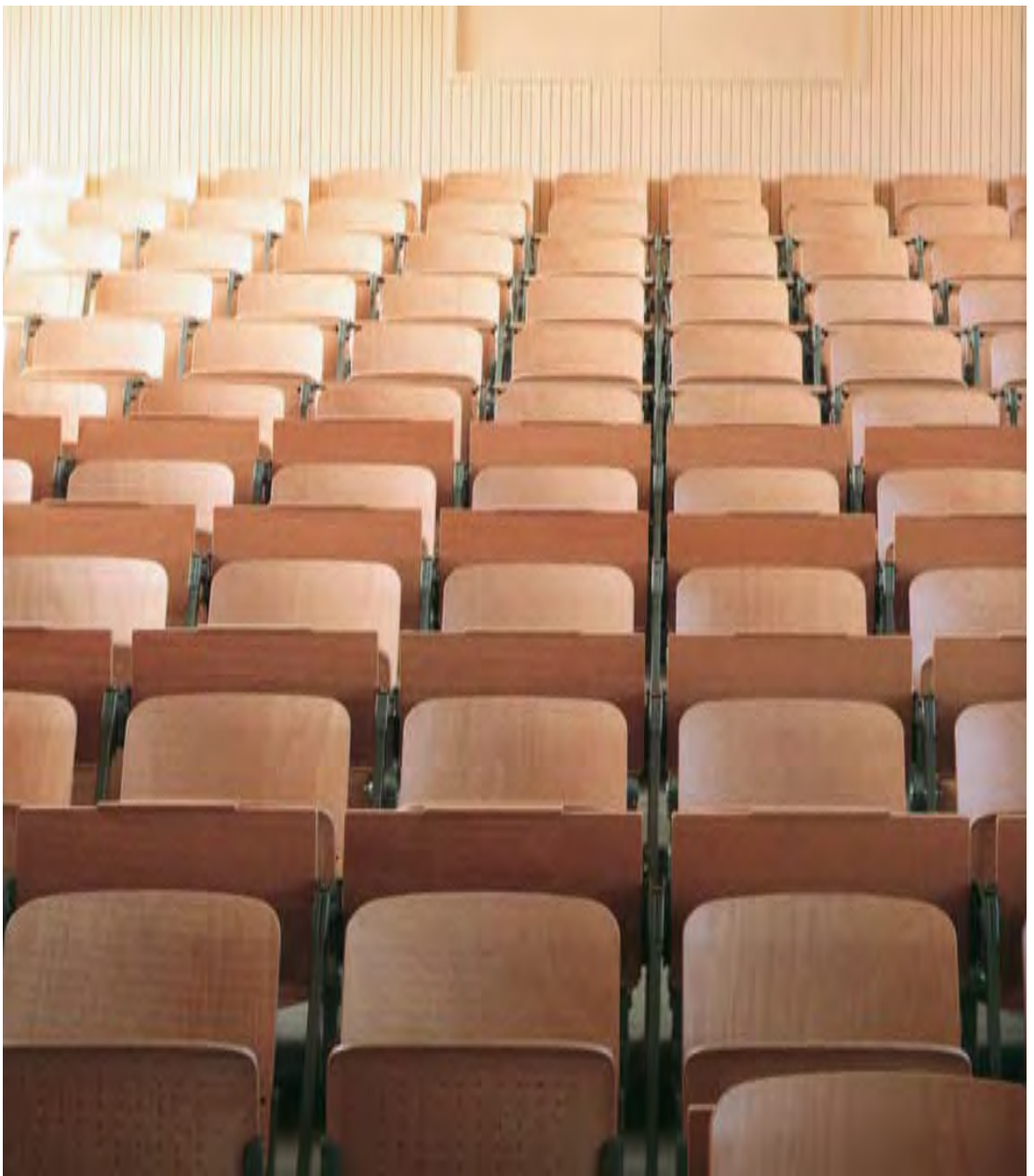
Beech is the most frequently used type of wood for chair production. From the classical coffee-shop chair to molded plywood elements for seating in stadiums and sports halls, the spectrum is immense.

Kitchens

Modern-day kitchen furniture made of beech is highly popular. Here, too, beech provides lasting value and durability. Modern fitted kitchens and kitchen-cum-living-rooms in beech combine functionality and comfort with a warm and homely atmosphere.

Solid timber and veneer

Variable furniture units and systems made of beech are rugged and easy to care for. They meet every demand in terms of workmanship, lasting value and versatility. Reddish white beech is extremely adaptable in visual terms and harmonizes perfectly with other species of wood and other materials.



GRADING RULES FOR BEECH LUMBER UNEDGED IN ACCORDANCE WITH THE EOS STANDARD

The European Organization of the Sawmill Industry (EOS) has harmonized its visual grading rules for the whole of Europe. There are also plans to have these rules published in the future as a European standard.

Quality characteristics	A - grade	B - grade	C - grade
Length	≥ 2,10 m	≥ 2,10 m	90 % ≥ 2,10 m 10 % ≥ 1,80 m
Minimum width (measurement: half-wane)	≤ 32 mm ≥ 100mm > 32 mm ≥ 120mm	≤ 32 mm ≥ 100mm > 32 mm ≥ 120mm	≤ 32 mm ≥ 100mm > 32 mm ≥ 120mm
Sound knots	- 80 % of pieces free on both sides - 20 % of the pieces one small knot - (max. 10% of the width) allowed per piece of 2.10 m length	Isolated small knots (max. 15% of the width) or one large knot (> 70 mm) per running meter when compensated in size	Permitted
Dead knots, unsound knots	Not permitted	1 knot of up to 70 mm per running meter permitted, when compensated in size	Permitted
Slope of Grain	Nearly straight slope of grain	Light slope of grain allowed	Permitted
Curly grain	90 % of the pieces free on both sides, 10 % of the pieces allowed, when compensated in size	Allowed, when compensated in size	Permitted when compensated in size
Decay	Not allowed	Allowed, when compensated in size	Permitted when compensated in size
Discolourations	Not allowed	Allowed, when compensated in size	Permitted when compensated in size
Red heart Subject to agreement: red heart no defect (RH grading) otherwise same as for A, B, C - Grade	80 % of the pieces free on both sides. Allowed at 20 % of the pieces on the back, up to 10% of the width.	Permitted up to 10% of the wide side	Permitted on both sides if the white area to the heart is at least 12 cm
Curvature	Max. 2 cm per running meter	Up to 5 cm per running meter	Permitted
Cracks, fissures	Straight cracks of up to 20% of the length permitted	Straight cracks of up to 30% of the length permitted; unstraight cracks permitted, when compensated in size	Straight and unstraight cracks permitted up to 40% of the length

Source: EOS (European Organization of the Sawmill Industry)

Certified forestry

The majority of German forests are certified in accordance with PEFC or FSC standards. This means that the forestry reserves are managed with a focus on quality and value and on the sustainable management of timber as a resource.

Selection of the raw material

Quality control begins with the selection of the logs. The beech logs are examined on site and graded into use categories. The conversion of every log is optimized to guarantee high-quality sawn timber which is perfectly tailored for its specific later use.

GRADING RULES FOR BEECH LUMBER EDGED IN ACCORDANCE WITH NHLA STANDARD

Beech lumber which has been edged by hardwood sawmills on the basis of the American NHLA sorting rules is a clearly defined material of high quality for further processing.

The grades

FAS (First and Second)

Top quality. Both faces suitable for the highest requirements.

Use: Natural beech, varnished, stained in a light color, visible on both sides. For solid furniture elements, furniture fronts, solid wooden panels, moldings, stairs, etc.

FAS/1F (FAS one face: just one side FAS)

One face top quality. For furniture, furniture fronts, solid wooden panels, moldings, stairs, solid flooring, table tops.

SEL BET (SELECT AND BETTER)

Graded analog to FAS/1F, but minimum 100 mm width and 1.85 m in length.

No. 1 COMMON

High yield, medium and long lengths. Ideal for furniture elements, solid wooden panels, parquet flooring, rustic country flooring and stairs.

Quality characteristics	FAS	FAS/1F	SEL BET	No.1 Common
METRIC				
Length	≥ 2,45 m	≥ 2,45 m	≥ 1,85 m	≥ 1,85 m
Minimum width	≥ 150 mm	≥ 150 mm	≥ 100 mm	≥ 80 mm
INCHES				
Length	≥ 8'	≥ 8'	≥ 6'	≥ 6'
Minimum face width	≥ 6"	≥ 6"	≥ 4"	≥ 3"
Grading	According to NHLA standard			
Yield	≥ 83,33 %	≥ 83,33 %	≥ 83,33 %	≥ 66,66 %
Explanations	FAS: first and second	FAS/1F: one face; just one side FAS		COM: Common
Special rules	Color no defect. No limitation in red heart, all other specifications as above.			

Drying

Specialist knowledge is required to dry beech. German hardwood sawmills are specialized and have the necessary drying capacities and state-of-the-art technology.

Grading

Edged and unedged timber is graded in accordance with international standards (EOS, NHLA).

Steaming

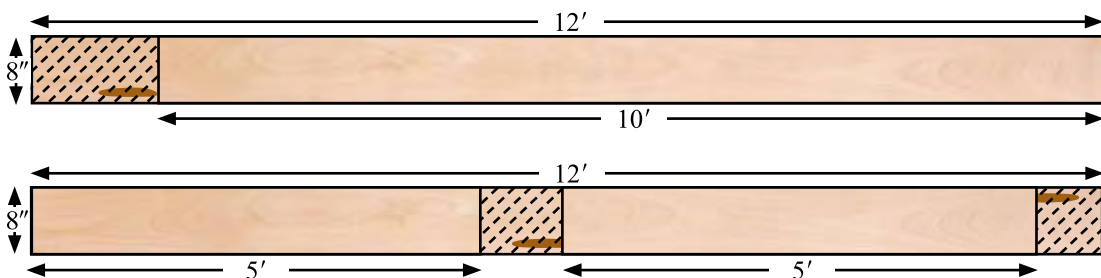
Steaming intensifies the natural color of the beech and gives it a warm, reddish hue. The coloration can be controlled to meet specific customer requirements. For the production of bent parts – a typical beech product – advance steaming is also deployed. Steaming improves the workability of the beech wood.

INFORMATION ABOUT NHHLA - GRADING

FAS

The minimum dimension of the board is 6" or wider and 8' or longer. The FAS class contains pieces with yields of 83.33% to 100% in clean sections which have to be 3" and wider and 7' longer or minimum 4" wide x 5' long.

Both faces of the board must meet the minimum requirements for FAS.



FAS/1F

The better face of the board must meet all the requirements for FAS. The poorer face must meet the requirements for No. 1 Common.

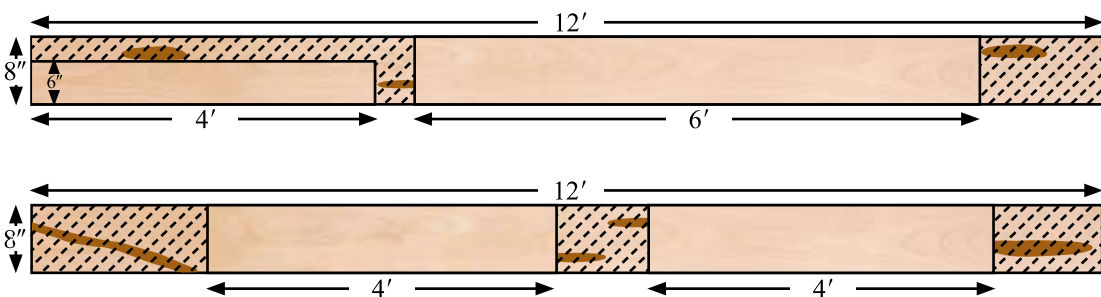
SELECT AND BETTER

Minimum width 4". Minimum length 6'. Yield 83.33%.

No. 1 COMMON

The minimum dimensions for the board are 3" width and 4' length. The yield on sections which are clean on one face must be between 66.66% and 83.33% (the minimum yield for FAS). The smallest permitted clean cuts are 3" x 3" und 4" x 2'.

Both faces of the board have to meet the minimum requirements of No. 1 Common.



Source: NHLA - Rule Book for the Measurement and Inspection of Hardwood and Cypress

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