

SECTION V

APPENDIX BA

GUIDE TO HARDWOOD FLOORING GRADES

OAK FLOORING GRADING RULES

NOFMA Clear Oak

A flooring product of mostly heartwood with a minimum number of character marks and discoloration, providing a uniform appearance while allowing for all heartwood natural color variations.

Will admit the following:

3/8" bright sapwood entire length of strip or equivalent if not extending further than 1" for 1/3 length of piece; small burls and fine pin worm holes; and equivalent characters such as small tight checks; in the absence of these, one thin brown streak 3" long to be allowed every 6".

Standard Packaging - Bundles to be 1-1/4' and longer; Average length, bundled or nested, 3-3/4'.

Shorter Packaging - Average length for 7' and shorter packages, nested or otherwise, 3-1/2'.

NOFMA Select Oak

A flooring product with coloration variations produced by differences of natural heartwood and sapwood, along with characters described.

The face may contain:

unlimited sound sapwood; slight imperfections in milling; a small tight knot every 3'; pin worm holes; burls and a reasonable amount of slightly open checks. Brown streaks should not extend the entire length of a piece. Two flag worm holes to every 8' are permitted. Slight imperfections in face work (torn grain) admitted. An intermittent, brown machine burn across the face not exceeding 1/4" width admitted. Also, a slight quantity of bark on the back or sides admitted. Will admit pieces with 1/2 tongue. Spot filling is generally required for open characters.

Standard Packaging - Bundles to be 1-1/4' and longer; Average length, bundled or nested, 3-1/4'.

Shorter Packaging - Average length for 7" and shorter packages, nested or otherwise, 3'.

NOFMA No. 1 Common Oak

A flooring product which contains prominent variations in coloration and varying characters.

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The following are not admitted:

broken knots over 1/2" in diameter, large grub worm holes, and splits extending through the piece. Open characters such as checks and knot holes are admitted, but must be sound and readily fill. Not more than 20" scant stock in thickness allowed to every 5'. Minor imperfections in machining permitted. Shall admit sticker stain; varying wood characteristics, such as flag worm holes, heavy streaks, checks, and worm holes; and as occasional dark machine burn across the face not exceeding 1/2" wide, 1/64" deep and not more than two each 3' 1/4 tongue allowed. Extremely dark pieces are not to be included.

Standard Packaging - Bundles to be 1-1/4' and longer; Average length, bundled or nested, 2-3/4'.

Shorter Packaging - Average length for 7' and shorter packages, nested or otherwise, 2-1/2'.

NOFMA No. 2 Common Oak

May contain sound natural variations of the forest product and manufacturing imperfections. The purpose of this grade is to furnish a floor suitable for homes, general utility use, or where character marks and contrasting appearance is desired.

The following are not admitted:

shattered or rotten ends, large broken knots, excessive bad millwork, shake, advanced rot, and similar unsound defects. Dark machine burns exceeding 3/64" deep not admitted. Knot holes and open characters which will readily fill are admitted. A limited number of pieces with no tongue which may be face nailed are admitted.

Standard Packaging - Bundles to be 1-1/4' and longer; Average length, bundled or nested, 2-1/4'.

Shorter Packaging - Average length for 7' and shorter packages, nested or otherwise, 2'.

NOFMA 1-1/4' ft. SHORTS OAK

Pieces 9" to 18" long are to be bundled together and designated as 1-1/4' Shorts. Pieces graded NO. 1 COMMON, SELECT and CLEAR to be bundled together and designated NO. 1 COMMON & BETTER with pieces grading NO. 2 COMMON bundled separately and designated as such. Although pieces 6" under and only 3" over the nominal length of the bundle may be included, the pieces must average 1-1/4' which is achieved through the natural preponderance of longer lengths.

BEECH (*Fagus grandifolia*)

BIRCH (*Betula alleghaniensis* B. *lenta*)

& HARD MAPLE (*Acer saccharum*)

GRADING RULES

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NOFMA recognizes 3/4", 25/32" and 33/32" as standard thickness for the manufacturer of Hard Maple, Beech, and Birch flooring. NOFMA members may, at their option, produce either 25/32" or 3/4" thick Hard Maple, Beech and Birch flooring.

NOFMA Select and better Beech, Birch & Hard Maple

Shall have the face practically free of all defects, but the natural color of the wood shall not be considered a defect. The highest standard grade, combines appearance and durability.

Will admit the following:

variations in the Natural Color of the wood (with use of some finishes, slight shadows and color variation may appear); an occasional small, firm Pin Knot, not over 1/8" in diameter, provided it does not occur on edges or ends of strips; occasional dark Green or Black Spots or Streaks not over 1/4" wide and 3" long (or its equivalent) which may contain a tight check not over 1/2" long, provided it is boxed within the piece; Bird's Eyes and small Burls; slightly Torn Grain or similar defect which can be readily removed by the ordinary method of sanding the floor after it is laid; slightly Shallow Place not over 12" long on underside of the flooring if it does not extend to either end of the piece. Pieces with 1/2 Tongue for no more than 25% of the length are allowed. The wood must be sound and free of Shake. Bark Streaks shall not be permitted.

Bundles shall be 1-1/4' and longer through 7' or 8' as the stock will produce. Not over 55% of the total footage shall be in bundles under 4'; Not more than 25% of the total footage shall be in 2' bundles, and not more than 10% of the footage shall be in 1-1/4' bundles.

Nested bundles: Maximum average number of pieces under 1-1/4' shall be 8 pieces. Average length is 3'.

NOFMA No. 1 common Beech, Birch & Hard Maple

A floor with varying wood characteristics and colors to include distinct color variations, numerous Streaks, stained Sapwood, sound Knots, and Checks. All defects must readily fill.

Will admit the following:

sound tight Knots, provided they do not occur on edges or ends of strips; slight Imperfections in machining; distinct Color Variations; Sticker Stain/Shadow; numerous dark Green or Black Spots or Streaks, provided they do not occur in combination with predominantly dark heartwood; slight Checks not exceeding 3" in length (may be slightly open) and running parallel with and well inside the edges and ends of the strips; dark Spots or Streaks with slight Checks in center; small Rough Spots (Torn Grain) which

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cannot be wholly removed by ordinary method of sanding the floor after it is laid; slightly Torn Edges; Short Tongue if sufficient to hold properly in the floor; Shallow or Waney Back, if piece has sufficient bearing of full thickness to support it in the floor; small bark Streaks where bark is as sound as surrounding wood; and slight variation in Angle of End Matching. The face shall be free of Shake and wood must be sound.

Bundles shall be 1-1/4' and longer through 7' or 8', as the stock will produce. Not over 60% of the total footage shall be in bundles under 4'; not more than 27% of the total footage shall be in 2' bundles; and not more than 15% of the footage shall be in 1-1/4' bundles.

Nested bundles: Maximum average number of pieces under 1-1/4' shall be 12 pieces. Average length is 2-3/4'.

NOFMA No. 2 common Beech, Birch & Hard Maple

Must be of such character as will lay and give a good serviceable floor. The wood must be firm, serviceable and may contain all defects common to Maple. Pieces with 1-1/4' full Tongue admitted.

Third Grade will not admit:

Knot Holes over 3/8" in diameter or unsound Knots where the unsound portion is over 1" in diameter; Voids on Ends or Edges; or Shake, Heart Checks, badly Split Ends and Imperfections in Manufacture which would materially impair the serviceability of the floor.

Bundles shall be 1-1/4' and longer through 7' or 8', as the stock will produce. Not over 85% of the total footage shall be in bundles under 4'; and not more than 55% of the total footage shall be 1-1/4' bundles.

Nested bundles: Maximum average number of pieces under 1-1/4' shall be 42. Average length 2-1/4'.

NOFMA No. 1 common and better Beech, Birch & Hard Maple

A combination of FIRST GRADE and SECOND GRADE developing from the production run. The lowest grade pieces admissible shall not be less than SECOND GRADE.

Bundles shall be 1-1/4' and longer through 7' or 8' as the stock will produce. Not over 60% of the total footage shall be in bundles under 4'. Not more than 27% of the total footage shall be in 2' bundles; and Not more than 15% of the footage shall be 1-1/4' bundles.

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Nested bundles: Maximum average number of pieces under 1-1/4' shall be 12 pieces. Average length 2-3/4'.

NOFMA No. 2 common and better Beech, Birch & Hard Maple

A combination FIRST GRADE, SECOND GRADE, and THIRD GRADE developing from the production run. The lowest grade pieces admissible shall not be less than THIRD GRADE.

Bundles shall be 1-1/4' and longer through 7' or 8', as the stock will produce. Not over 60% of the total footage shall be in bundles under 4'.

Nested bundles: Maximum average number of pieces under 1-1/4' shall be 42. Average length 2-1/4'.

SPECIAL GRADES FOR BEECH, BIRCH & HARD MAPLE

NOFMA Clear White Maple Hard Maple

Is special stock, selected for uniformity of color. It is almost ivory white and is the finest grade of Hard Maple flooring that can be produced. Sapwood/Heartwood pieces must have 95% Sapwood on the face. Strips must be free from stain and Heartwood portion must be nearly white. All FIRST GRADE rules apply.

EXCEPTIONS: Streaks- should be light brown or light green, not over 1/4" wide and 3" long (or equivalent), one per 3'. Black Spots, Sticker Stain/Shadow, not admitted.

NOFMA Clear Red Beech & Birch

Are special grades produced from all red faced stock, and are specially selected for color. The color is rich, being a soft tint which lends these two woods an individuality found in no other species. Strips must have 95% red faced characteristics. All FIRST GRADE rules apply.

EXCEPTIONS: Streaks- should be light brown, Black Spots, Sticker Stain/Shadow, not admitted.

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HICKORY/PECAN GRADING RULES

NOFMA Select and better

Hickory / Pecan

Shall have the face practically free of all defects, but the natural color of the wood shall not be considered a defect. The highest standard grade, combines a nearly uniform appearance with exceptional durability.

The following characters are admitted:

variations in the Natural Color of the wood, Heartwood and Sapwood; an occasional small, firm Pin Knot or Bird Peck, not over 1/8" in diameter, provided it does not occur on edges or ends of strips; dark Streaks not over 1/4" wide and 3" long (or its equivalent one for every 3 ft. in length); slight Checks not over 1/2" long, provided Check is boxed within the piece; small Burls; slight Torn Grain or slight intermittent Machine Burn, or similar defect which can be readily removed by the ordinary method of sanding the floor after it is laid; A slightly Shallow Place not over 12" long on underside of the flooring if it does not extend to either end of the piece. Pieces with 1/2 tongue for no more than 25% of the length are allowed. The wood must be free of Shake. Bark Streaks shall not be permitted.

Packaging: 8' or shorter, Nested or Bundled. Pieces/Bundles shall be 1-1/4' and longer through 7' or 8' as the stock will produce (9" Minimum, 102" Maximum). Average length 3 1/4'. Average length for 7' and shorter packages, nested or otherwise - 3'.

NOFMA No. 1 common

Hickory / Pecan

A floor with varying wood characteristics and colors to include heavy Streaks, stained Sapwood, sound Knots, Checks and small Splits. All defects must readily fill and be sound.

The following characteristics are admitted:

Broken Knots up to 1/2" in diameter; distinct Color Variations (predominantly dark, discolored pieces not allowed); Sticker Stain/Shadow; numerous dark Streaks or black spots; Checks to 1/16" not exceeding 3" in length, and running parallel and well inside the strip edges; small End Split 1/16" x 1/2" showing no movement; Bird Pecks to 1/2" where bark is sound and as hard as surrounding wood.

Minor imperfections in machining permitted; Torn Grain (less than 1/16" deep and 3" long for full width); slightly Torn Edges; and an occasional dark Machine Burn 1/2" in width (1 per 3').

Will admit pieces with 1/2 full Tongue entire length of piece.

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Packaging: 8' or shorter, Nested or Bundled. Pieces/Bundles shall be 1-1/4' and longer through 7' or 8' as the stock will produce (9" Minimum, 102" Maximum). Average length 2-3/4'. Average length for 7' and shorter packages, nested or otherwise- 2-1/2'.

NOFMA No. 1 common and better Hickory / Pecan

A combination of FIRST GRADE and SECOND GRADE developing from the production run. The lowest grade pieces allowed are SECOND GRADE.

Packaging: 8' or shorter, Nested or bundled. Pieces/Bundles shall be 1-1/4' and longer through 7' or 8' as the stock will produce (9" Minimum, 102" Maximum). Average length 2-3/4'. Average length for 7' and shorter packages, nested or otherwise-2-1/2'.

NOFMA No. 2 common Hickory / Pecan

Must be of such character as will lay and give a good serviceable floor. The wood must be firm, and may contain defects of every character. This grade is intended to give a "rustic" appearance.

The following defects are not allowed:

Knot Holes over 3/8" in diameter or unsound Knots where the unsound portion is over 1" in diameter (the unsound portion can not extend through piece); Shake, Soft Rot, Splits and open defects which extend through piece or show movement; Torn Grain more than 1/4" deep; Edge Splinters; and Imperfections in Manufacture which would materially impair the serviceability of the floor.

Knot Holes, Bird Pecks, Worm Holes, and the like which will readily fill are admitted. Pieces with 1/4 full tongue admitted.

Packaging: 8' or shorter, Nested or bundled. Pieces/Bundles shall be 1-1/4' and longer through 7' or 8' as the stock will produce (9" Minimum, 102" Maximum). Average length 2-1/4'. Average length 7' and shorter packages, nested or otherwise-2'.

NOFMA No. 2 common and better Hickory / Pecan

A combination of FIRST GRADE, SECOND GRADE, and THIRD GRADE developing from the production run. The lowest graded pieces allowed are THIRD GRADE.

Packaging: 8' or shorter, Nested or bundled. Pieces/Bundles shall be 1-1/4' and longer through 7' or 8' as the stock will produce (9" Minimum, 102" Maximum). Average length 2-1/4'. Average length for 7' and shorter packages, nested or otherwise-2'.

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SPECIAL GRADES

Hickory / Pecan

NOFMA Clear Red

Hickory / Pecan

Is a special stock selected for its deep red/brown color with the minimal contrast of lighter Sapwood.

Face of pieces shall be Heartwood (95%).All First Grade Rules apply.

NOFMA Clear White

Hickory / Pecan

Is special stock selected for its creamy color with the minimal contrast of the darker Heartwood. The face of pieces shall be bright Sapwood (95%). All First Grade Rules apply.

EXCEPTIONS: Streaks should be light brown not over 1/4" wide and 3" long (or equivalent) one per 3'. Black Spots not allowed,Sticker Stain/Shadow none allowed.

NOFMA No. 1 common red

Hickory / Pecan

Is special stock selected for minimal contrasting lighter Sapwood. The face of pieces shall be Heartwood (85%).All Second Grade rules apply.

ASH GRADING RULES

NOFMA CLEAR ASH

The face shall be practically free of defects

The following characters are admitted:

Small burls (less than 1/8" diameter; Fine pin worm holes with no discoloration (1 for every 3' in length); or in the absence of these,one (1) thin light brown streak (3' long to be allowed for every 6' of length or equivalent

Brown Heartwood is allowed as follows: 3/8" entire length or one 1" for one-third the length of the strip

Clear Ash is usually chosen for it's light color. Bundles to be 1-1/4' and up. Average length (Standard Packaging) 3-3/4'. Average length for shorter packaging, nested or otherwise, 3-1/2'.

NOFMA SELECT ASH

The face shall contain mostly Sapwood, unstained.

The following characters are admitted:

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Narrow streaks not running entire length of the strip; Pin worm holes (up to 3 every 3' in length); Imperfections in milling (Torn grain) which will sand out; One (1) small tight knot (1/4' in diameter) to every 3' in length; Small pith fleck (less than 1/4" diameter); An intermittent brown machine burn across the face not exceeding 1/4" in width; and Unlimited cambium miners.

Brown Heartwood is allowed as follows: 3/8" entire length or 1" for one-third the length of the strip.

Will admit pieces with 1/2 tongue. Most defects are lost sight of after the floor is laid and finished, giving a good appearance

Bundles to be 1-1/4' and up. Average length (Standard Packaging) 3-1/4'. Average length for Shorter Packaging, nested or otherwise, 3'.

NOFMA NO. 1 COMMON ASH

A floor with varying wood characteristics such as Heavy streaks, Stained sapwood, and Sound knots typical of this grade. All defects must readily fill and be sound

The following characters are admitted:

Broken knots up to 1/2" in diameter; Pith flecks less than 3/16" in diameter; Worm holes up to 3/16" in diameter; Checks and End splits less than 1/16" in depth wide and not extending through the piece and Sticker stain

Minor imperfections in machining permitted Torn grain (not over one-fourth (1/4) of the surface, less than 1/16" in depth); One (1) dark machine burn across the face for every 3' of length not exceeding 1/2" in width, 1/64" in depth.

Will admit pieces with 1/4 tongue. Bundles to be 1-1/4' and up. Average length (Standard Packaging) 2-3/4'. Average length for Shorter Packaging, nested or otherwise, 2-1/2'.

NOFMA NO. 2 COMMON ASH

Defects of every character admitted, but should lay a serviceable floor.

The following defects are NOT allowed:

Soft rot; Broken knots where the unsound portion extends through the piece; Torn grain over 3/16" in depth; Splits and Open defects extending through the piece; Shake and Pith flecks that are soft if over 1/4" in diameter.

Knot holes and defects which will readily fill are admitted.

A limited number of pieces with no tongue and limited number of pieces that are thin (scant) in thickness but will End Match admitted. Bundles to be 1-1/4' and up Average length (Standard Packaging) 2-1/4'. Average length for Shorter Packaging, nested or otherwise, 2'.

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PREFINISHED SOLID OAK FLOORING GRADING RULES

White Oak and Red Oak in STANDARD & BETTER Grades with a natural coloration to be separated. All other colors and grades may be mixed Red Oak and White Oak. Grades are established after the flooring has been sanded and finished.

NOFMA PRIME PREFINISHED OAK

This is the top grade and the overall appearance shall be good. The face of strips shall be selected for appearance after finishing. This grade includes characteristics found in the unfinished grades of CLEAR and SELECT.

The following characters are admitted:

Unlimited Sapwood and the natural variations of color; Occasional small Burls; Light brown Streaks not more than 1/8" in width and 6" in length or the equivalent; an occasional very small tight 1/8" Knot; and limited 1/32" fine Pinworm Holes may be included in any one piece when properly filled. Will not admit pieces with less than 3/4 full tongue.

Minimum average length 3-1/4'. Bundles 1-1/4' and up.

NOFMA STANDARD PREFINISHED OAK

The face of strips may contain sound wood characteristics which are even and smooth after filling and finishing. This grade includes some characteristics found in the unfinished grades: SELECT, NO. 1 COMMON, and NO. 2 COMMON.

The following characters are admitted:

Worm holes; Season and Kiln Checks, Broken Knots up to 3/8" in diameter; minor imperfections in machining; Tom Grain and Burns. Other characters will be admitted if they do not impair the soundness of the floor. All larger admitted open characters are to be properly filled and finished. Limited unfinished/unfilled small open grade characters permitted.

Large Grub Worm Holes, Splits extending through the piece, Shake and similar unsound defects not admitted.

For naturally finished coloration- All the varying color characteristics of the wood admitted to include: Sticker Stain, and Dark Streaks up to 3/8" in width not to exceed 1" in length for each lineal foot.

For stained finishes- All varying colorations and streaks permitted, predominantly dark boards not permitted.

Minimum average length 2-1/2'. Bundles 1-1/4' and up.

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NOFMA STANDARD & BETTER PREFINISHED OAK

A combination of PRIME and STANDARD grade developing from the production run.

Minimum average length 2-1/2'. Bundles 1-1/4' and up.

NOFMA TAVERN PREFINISHED OAK

Should lay a serviceable floor.

A limited amount of unfilled/unfinished open characters admitted. A limited amount of pieces with finish irregularities such as bubbles, small skips, lines, stain/color variation, surface handling scratches, minor trash, and the like are allowed.

The following characters are NOT admitted: Mis-manufactured boards; Shattered or Rotten ends; large open Knots and other unsound defects of a similar nature; Pieces with less than 1/4 full tongue.

Minimum average length 2'. Bundles 1-1/4' and up.

NOFMA TAVERN & BETTER PREFINISHED OAK

A combination of PRIME, STANDARD, and TAVERN grades developing from the production run.

Minimum average length 2'.