

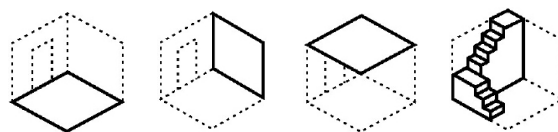
# Technical Data Sheet

Version 1.0



HW88101

## Ryder Handgrade



### Specification

Pattern	Plank
Construction	Multi Layered Engineered
Top Layer Specie	European Oak ( <i>Quercus robur</i> )
Surface Process	Flat Surface
Finish	UV Oiled
Connection System	Tongue & Groove
Edge Profile	4-Sided Bevelled Edge
Backing	Birch Plywood ( <i>Betula Pendula</i> )
Wear Layer Thickness	4-6mm
Total Thickness	19mm
Width	280-480mm
Length	2000-3900mm (May include up to 25% shorter boards)
Pack Size	TBC
Grade	Rustic



#### Key:

^ Please note that this is a smoked/ fumed product. This reactive process will typically generate a wider range of colour variation in the product.

\*\* This product may require on-site sanding prior to applying a suitable finish

‡ Pack lengths will vary between the specified minimum and maximum lengths depending upon stock availability.

\* Subject to compatible subfloor and correct installation (see Installation Guidelines) including sensors.

# Temperature of top-face must never be allowed to exceed 27°C. UFH protocol to control temperature conditions is recommended.

## Installation Methods

Fully Bonded	Yes* (recommended)
Nailed/Screwed	Yes*
Floated on Underlay	No
Over Underfloor Heating	Yes*# (Please ask for our technical guidelines)

All Havwoods floor must be installed by a competent installer who will have the necessary skills and take individual site circumstances into account. Havwoods warranty will apply only to floors which have been installed by a competent flooring installer comparable to BS8201 in the UK or equivalent standards worldwide.

## Grading Criteria

Sound Knots	Unlimited Ø allowed
Broken Knots	Up to 50mm Ø allowed
Filled Defects	Allowed
Heart/Pith	Allowed
Sapwood	Up to 10% of the width allowed (in 10% of board, max 10% of width)
End Checks	50% of board allowed (Max 5mm open)
Insect Damage	Not allowed
Filler	Allowed
Colour Variation	Allowed
Small Cracks	Up to 4mm open allowed, max length up to width of board
Inner Bark	Not allowed

**N.B. The product grading criteria is inspected at each mill visually and should be taken as an approximation only.**

## Technical Criteria

Origin	Europe
Responsible Certification	FSC® Certified (FSC-C009500)
Janka Hardness Rating	1,120 lbf (4,980N)
Formaldehyde Emissions	E1 (EN717-1)
Pentachlorophenol Emissions	< 5ppm (CEN/TR 14823)
Slip Testing	82/42 PTV (CEN/TS 15676:2007)
Reaction to Fire Classification	Cfl-s1 (EN 13501-1)
Thermal Resistance	0.17 W/m K (EN 12664)



# HAVWOODS

For More Information  
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Comprehensive maintenance instructions and materials are available from Havwoods for all floors.



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