



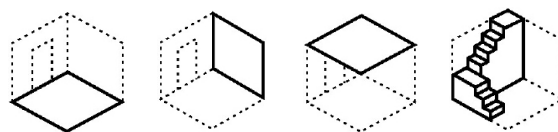
# Technical Data Sheet

Version 1.0

HW16440

## Marrone

### Italian Collection



#### Specification

Pattern	Plank
Construction	Multi-Layered Engineered
Top Layer Specie	European Oak ( <i>Quercus robur</i> )
Surface Process	Brushed
Finish	Lacquered
Connection System	Tongue & Groove
Edge Profile	2-Sided Bevelled Edge
Backing	Birch Plywood ( <i>Betula</i> spp.)
Wear Layer Thickness	4mm
Total Thickness	10mm
Width	120mm
Length	800–1400mm (May include up to 25% shorter boards)
Pack Size	Various
Grade	Prime



#### 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	No
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.

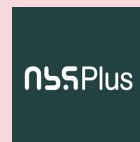
## Grading Criteria

Sound Knots	Up to 7mm Ø allowed
Broken Knots	Not allowed
Filled Defects	Not allowed
Heart/Pith	Not allowed
Sapwood	Not allowed
End Checks	Not allowed
Insect Damage	Not allowed
Filler	Not allowed
Colour Variation	Allowed
Small Cracks	Not allowed
Inner Bark	Not allowed
Modullary Rays	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
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	65/20 PTV (BS7976-2)
Reaction to Fire Classification	Cfl-s1 (EN13501-1)
Thermal Resistance	0.19 W/m K (EN 12664)



# HAVWOODS

## For More Information Contact Our Experienced Team:

Tel: +44 (0)1524 737 000 | Fax: +44 (0)1524 737 001  
Email: [info@havwoods.com](mailto:info@havwoods.com)

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



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