

RELMAT MULTI-LAYER FLOORING

PEGASUS LINE

TECHNICAL SPECIFICATIONS

1. Product Information

The all time classic and favourite oak parquet, comes now in multilayer version. Pegasus Line parquets fulfil the requirements for beautiful, long planks, as their length is fixed at 2,2metres. They are formed by a top layer of natural oak 3.5mm thick, based on a core layer of solid pine finger strips and a birch veneer at the bottom. The top layer is covered by 7 coats of ecological UV varnish, with aluminum oxide in one of the base coatings and the last 2 layers of Anti-Scratch finish for better protection of the everyday wear. Pegasus Line parquets are installed floating very quickly and easily due to the clic system. They can also be glued on the subfloor with the use of the special underlay Elastilon®.



- 1 7 layers of ecological UV cured varnish on the top side.
- 2 Top layer of hardwood, 3.5mm thick
- 3 Core layer of solid pine finger strips
- 4 Locking system clic
- 5 Base of birch veneer

2. Pegasus Line Tolerances / Requirements according to EN 13489

Face of the element		
Features	Class and Limits	
	Oak Premium 1-strip	Oak Natural/ Oak Milky
Sound Sapwood	Not permitted	Not permitted
Knots^a Sound and intergrown Unsound knots ^b	Not permitted	Permitted if: diameter ≤ 8mm diameter ≤ 2mm
Checks	Not permitted	Permitted up to 20mm in length per strip
Bark pockets	Not permitted	Not permitted
Lighting shake	Not permitted	Not permitted
Curly grain	Permitted, no limit	Permitted, no limit
Slope of grain	Permitted, no limit	Permitted, no limit
Colour variation	Slight variation permitted	Permitted
Medullary ray	Permitted	Permitted
Biodeterioration	Not permitted	Not Permitted
Non-visible parts		
All features permitted without limit to size or quantity if these do not impair the strength or the wearing quality of the parquet flooring		

a Cracks in knots and knot holes shall be filled

b Knots are grouped together if the distance separating them, measured from edge to edge, does not exceed 30mm

Glossary

Sound sapwood: Sound is a term referring to a board which has no or very few defects, which will affect its strength. Sapwood is the new wood in a tree, which contains cells and reserve materials such as starch and lies between the bark and the Heartwood. Sapwood is usually lighter in color and becomes heartwood as the tree ages.

Knots:

- i. Unsound knots are knots with the bark on the branch captured in the wood of the board. The knot may not be loose at the time of grading, but may become loose later in its life.
- ii. Sound knots, tight knots, intergrown knots are all different ways of describing knots that are well bonded to the parent wood of the board. They do not present problems for the use of an appearance product, but they will affect the classification of the piece.

Checks: a lengthwise separation of the wood that usually extends across the rings of annual growth and commonly results from stress set up in wood during air drying or kiln-drying.

Bark pockets: are gaps in the wood where the growing tree has captured some bark or resin. The bark or resin may still be there, but often it has disappeared leaving an empty dark-coloured pocket. All resin or bark pockets must have their width and length estimated. A piece is classed as within the grade where the pocket is smaller than the published size limit.

Lighting shake: A separation along the grain, the greater part of which may occur at the common boundary of two rings or within a growth ring. It is usually considered to have occurred in the standing tree or during felling.

Medullary rays: are strips of cells extending radially within a tree and varying in height from a few cells in some species to four or more inches in oak. The rays serve primarily to store food and transport it horizontally in the tree. On quarter sawn oak, the rays form a conspicuous figure, sometimes referred to as Flecks.

Biodeterioration: is the breaking down of timber by natural or biological agent, such as fungi and insects.

Characteristic	EN 13489	Unit	Pegasus Line
Top layer thickness of element (<i>t</i>)	4.6.2		
Thickness		mm	≥ 2,50mm
Permitted deviation of length (<i>l</i>)	4.6.2		
Length		mm	Not applicable
Permitted deviation of width (<i>w</i>)	4.6.2		
Width		mm	±0,20mm
Lipping (between element)	4.6.2		
Lipping		mm	≤ 0,20
Permitted deviation of Squareness (<i>q</i>) over the width	4.6.2		
Squareness		%	< 0.20
Cup (across the element)	4.6.2		
Cup		%	< 0.20
Spring (along the element)	4.6.2		
Spring		%	< 0.10

Terms and definitions according to EN 13756, Wood Flooring – Terminology):

Lipping: Difference in height between the faces of two adjacent and assembled elements when laid on a flat surface

Cup: Curvature of an element across the width of the face

Spring: lengthwise curvature of an element normal to the edge

3. Technical Properties of Coating

The Klumpp UV-Coating applied on the Pegasus Line is environmental friendly and non hazardous (ECO Institut, Tested product ID 1108-12155-001).

Klumpp Coatings are:

- a. sweat and saliva resistance according to DIN 53160-1/2
- b. non- coreinogenic
- c. REACH* approved raw materials
- d. Eco approved coating systems
 - i. No VOC emissions (Volatile Organic Compounds)
 - ii. No formaldehyde
 - iii. No heavy metals
 - iv. No insecticides, pesticides and herbicides
 - v. No plasticizers (Phthalates) EN 71-3

* Registration, Evaluation, Authorizations and restriction of Chemical substances)



New concept



Description	Test Method	Standard	Klumpff Coating Results
Abrasion resistance	DIN 68861 Part 2	S33/500g Initial Point	IP 1.050 cycles
	ASTM D 4060	CS17 (Weight loss)	25mg
		CS17 (Initial point)	IP > 25.000 cycles
	SIS 923509	SIS Falling sand method	IP 1.500 cycles
Adhesion test (Cross-cut test)	DIN EN ISO 2409	GT 0 to 5	GT 0*
Gloss value	ISO 2813	60°	29-33 Units
Scratch resistance		Steel wool test	No scratches, no marks
Impact Resistance Small ball (N)	DIN EN 438 Part 2-12		8 Newton

4. CE 14342:2005

The CE Marking guarantees that the product properties correspond to the requirements set by the European Union.

The European Standard **EN 14342:2005**, defines and specifies for wood and parquet flooring relevant characteristics and the appropriate test methods to determine these characteristics for internal use as flooring. Pegasus Line from RELMAT, carries the CE sign.



The following performance characteristics shall be determined:

Obligatory

- a. Reaction to fire
- b. Release of formaldehyde
- c. Emission of pentachlorophenol

Voluntary

- a. Slippery resistance
- b. Thermal conductivity
- c. Biological durability

REACTION TO FIRE test

Determination of the performance characteristics	Pegasus Line
Products meeting the definition of Table 1, of the EN14342:2005 are considered to be classified without further testing.	Are categorized as fire class C_{ff} (Low flammability)

RELEASE OF FORMALDEHYDE

Determination of the performance characteristics	Pegasus Line
The formaldehyde release of wood flooring products shall be determined according to Annex B of EN14342:2005 and according to the test EN 717-1.	Have E1

EMISSION OF PCP (pentachlorophenol)

Determination of the performance characteristics	Pegasus Line
Parquet and wood flooring normally contains less than 5ppm of pentachlorophenol.	Do not contain PCP

SLIPPERINESS

Determination of the performance characteristics	Pegasus Line
The slipperiness shall be determined in accordance with the pendulum test described in EN 1339:2003, Annex J.	Pegasus line has a pendular value of 20.





THERMAL CONDUCTIVITY

Determination of the performance characteristics	Pegasus Line
The thermal conductivity shall be determined only for uses subject to thermal insulation requirements. It shall be determined according to EN 12664.	Has a thermal conductivity of < 0,0938 W/ (m*/K)

BIOLOGICAL DURABILITY

Determination of the performance characteristics	Pegasus Line
For biological durability, it must be ensured that the timber species used in the finished flooring product remain the same or do not change to an extent. A classification is given for natural durability based on EN 335-2.	Class 1

According to the EN 350-2 and a cross reference with EN 335-2 the rating scale is 1 to 5 and it is used to define the resistance of heartwood, where; 5: states that it is not durable, 4: slightly durable, 3: Moderate durable, 2: durable, 1: very durable..

Slip Resistance	 EN 1339:2003	Pendular Value 20
Reaction to fire	 EN 14342:2005	Cfl
Formaldéhyde émission	 EN 717-1	E1
Thermal Conductivity	 EN 12664	< 0,0938 W/(m*/K) Suitable for underfloor heating

6. Dimensions – Packing Info

Characteristic	Unit	Pegasus Line
Top Layer		Solid Timber specie
Middle layer		Solid pine finger strips
Bottom Layer		Birch veneer
Thickness of element		
Top layer thickness	mm	3,500
Middle layer thickness	mm	9,000
Bottom layer thickness	mm	1,500
Length of the surface		
Length	mm	2200,00
Width of the surface		
Width (OAK Premium)	mm	158,00
Width (OAK Natural & OAK Milky)	mm	204,00
Panel per parcel		
Number of pieces	pieces	6
Weight		
Per parcel (OAK Premium)	kg	17,10
Per parcel (OAK Natural & OAK Milky)	kg	22,08
Surface per parcel		
Surface (OAK Premium)	m ²	2,0856
Surface (OAK Natural & OAK Milky)	m ²	2,6928
Parcel per pallet		
Number of parcels (OAK Premium)	parcels	66
Number of parcels (OAK Natural & OAK Milky)	parcels	50
Weight per pallet		
Approximately (OAK Premium)	kg	1128
Approximately (OAK Natural & OAK Milky)	kg	1104
Surface per pallet		
Surface (OAK Premium)	m ²	137,6496
Surface (OAK Natural & OAK Milky)	m ²	134,6400
Edges		
2 Side Micro Bevel (OAK Premium) / No Bevel (Square edge) (OAK Natural & OAK Milky)		