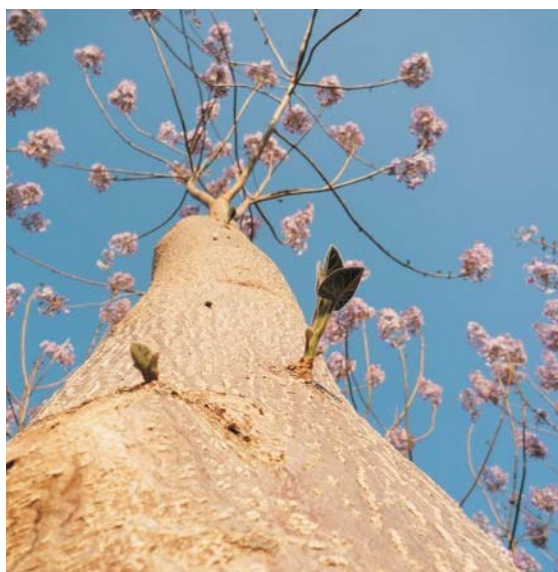




CLON IN VITRO 112a



MANUFACTURER

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PRODUCT

It has now been recognised as having advantages for use in applications where weight and strength is an important element, such as shipbuilding, construction of aircraft, trucks, trains, caravans, buses, boxes, surfboards, windows, shutters, wooden houses, saunas and charcoal for pyrotechnical products, manufacture of laminated beams, interior furnishings, etc.

Information provided by the manufacturer under his responsibility.

TESTS CARRIED OUT

Structural strength tests

Density
Moisture content on drying Static flexural strength
Modulus of elasticity Resistance to dynamic bending Hardness determination
Linear and volumetric shrinkage Hygroscopicity
Axial compression and static dimension
Perpendicular compressive strength Shear strength
Taction cleavage
Cleavability level
Tension perpendicular to the fibres

REGULATION

UNE 56 531
UNE-EN 13 183-2
UNE 56 537
UNE 56 537
UNE 56 536
UNE 56 534
UNE 56 533
UNE 56 532
UNE 56 535
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Thermal insulation resistance tests

Thermal conductivity Thermal resistance

Suitability for gluing

June 2013

AIDIMA
INSTITUTO TECNOLÓGICO
MUEBLE, MADERA, EMBALAJE Y AFINES

The tests described in this sheet have been carried out in the AIDIMA laboratory at the request of the manufacturer of the product. The results obtained only concern the sample analysed. These results are included in the test report reference 1303116-m.

STRUCTURAL STRENGTH			
FEATURE	RESULT	TEST METHOD	CLASSIFICATION UNE 56 540
Density (Kg/m ³)	237	UNE 56 531	VERY LIGHT
Moisture content by drying (%)	12,5	UNE EN 13183-2	*
Static bending strength (N/mm ²)	25,3	UNE 56 537	LOW RESISTANCE
Modulus of elasticity (N/mm ²)	2870	UNE 56 537	*
Dynamic bending strength (J/cm ²)	1,84	UNE 56 536	LOW RESISTANCE
Determination of hardness (mm ⁻¹)	0,24	UNE 56 534	VERY SOFT
Linear and volumetric shrinkage: Total volumetric shrinkage (%)	6,39	UNE 56 534	SMALL SHRINKAGE LITTLE NERVOUS
Coefficient of shrinkage (%)	0,26		
Linear shrinkage: (%) radial	3,00		
tangential	3,20		
longitudinal	0,14		
Hygroscopicity (g/cm ³)	0,0018	UNE 56 532	WEAK
Axial compression C ₁₂ (kg/cm ²) Static height C _e (cm)	150 6,34	UNE 56 535	LOW RESISTANCE
Perpendicular compressive strength (daN/cm ²) radial side tangential side	27,3 22,3	UNE 56 542	*
Shear strength (daN/cm ²)	31,4	UNE 56 543	*
Tensile yield stress R ₁₂ (kg/cm) Bendability Cl ₁₂ (cm)	5,87 0,25	UNE 56 539	VERY HENDIBLE
Tensile stress perpendicular to the fibres: Radial direction Perpendicular tension O ₁₂ (kg/cm ²) Adhesion height C _a (cm)	10,7 0,45	UNE 56 534	LOW ADHESION
Shear strength (daN/cm ²)	31,4	UNE 56 543	*

(*) The UNE 56450 standard does not classify wood species according to the parameters indicated.

THERMAL INSULATION RESISTANCE					
Temperature	0,59	9,63	19,95	29,05	39,33
Thermal conductivity W/m K	0,1460	0,1129	0,0747	0,0747	0,0691
Thermal resistance m ² K/W	0,3782	0,4891	0,7385	0,7385	0,7989

Determination of thermal resistance, according to UNE EN 12667:2002.

THERMAL PROPERTIES OF REF. OF DIFFERENT INSULATION MATERIALS AT 20° C

MATERIAL	DENSITY (kg/m ³)	THERMAL CONDUCTIVITY (W/m K)
Cork	120	0,042
Polyurethane foam	40	0,029
Foam glass	100	0,047

SUITABILITY FOR GLUING

The values obtained for "Surface tension" and Surface absorption" of the Paulownia wood of the sample CLON IN VITRO 112® tested, are of the same order as the values obtained for other wood species considered as EASILY FITTED.

The tests carried out on joints glued with the Paulownia wood of the sample CLON IN VITRO 112®, using adhesives for non-structural use, and on decorative laminate cladding with structural adhesives, allow us to consider the sample as CORRECT GLUING.