

# Environmental Product Declaration

In accordance with ISO 14025 and EN 15804:2012+A2:2019 for:

Engineered Wood Floor

**NATURFLOOR - W**

From

Parklex Prodema Int. S.L.U.

**PARKLEX PRODEMA**

Programme:	The International EPD <sup>®</sup> System, <a href="http://www.environdec.com">www.environdec.com</a>
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*An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at [www.environdec.com](http://www.environdec.com)*



<b>Programme:</b>	The International EPD <sup>®</sup> System
<b>Address:</b>	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
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## General information

## Programme information

ISO standard ISO 21930 and CEN standard EN 15804 serves as the core Product Category Rules (PCR)

Product category rules (PCR):  
PCR 2019:14 Construction products, version 1.11

PCR review was conducted by:  
The Technical Committee of the International EPD<sup>®</sup> System. See [www.environdec.com/TC](http://www.environdec.com/TC) for a list of members.  
Review chair: Claudia  
A. Peña, University of Concepción, Chile. The review panel may be contacted via the Secretariat [www.environdec.com/contact](http://www.environdec.com/contact).

Independent third-party verification of the declaration and data, according to ISO 14025:2006:  
 External     Internal

Covering  
 EPD process certification     EPD verification

Third party verifier:

Tecnalia R&I Certificacion, SL  
Auditor: Eva Larzabal  
[info@tecnaliacertificacion.com](mailto:info@tecnaliacertificacion.com)  
Accredited by: ENAC n°125/C-PR283 accreditation.

Procedure for follow-up of data during EPD validity involves third party verifier:  
 Yes     No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but from different programmes may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804. For further information about comparability, see EN 15804 and ISO 14025.

## Company information

Owner of the EPD: Parklex Prodema Int. S.L.U.

Description of the organisation:

Parklex Prodema Int. is a company dedicated to the manufacture of Engineered hardwood flooring specifically designed for high-traffic environments such as hotels, offices, museums, airports, retail stores, etc. It is also perfect for residential applications and ideally suited for installation over UFH systems.

Our first determination is to provide the world of architecture with exclusive materials that will enable architects to design warm, beautiful and comfortable spaces that improve the quality of life of their users. Efficient buildings dressed in the elegance of natural wood.

Environmental Management System Certificate	UNE-EN ISO 14001 GA-2002/070
Ecodesign Management Systems Certification	UNE-EN ISO 14006 ED-0009/2010
Forest product custody chain Management Systems Certificate	PEFC/14-35-00025-AEN

The company has acquired a commitment to nature by promoting a respectful and sustainable management with the environment, and particularly with the sustainable exploitation of forests.

Name and location of production site

Maderas Mejoradas Industrial  
Polígono Alkaiaga. C/ Baldrún 1  
31780 Bera - Navarra - Spain

Contact:

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Quality & Environment System Manager  
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More information: <https://www.parklexprodema.com>

## Product information



Product name: Engineered Wood Floor. NATURFLOOR – W



Product description: The NATURFLOOR - W performance layer is a 1,3mm cladding of natural hardwood and kraft papers resin encapsulated with a proprietary process. The core is a 9 ply layered marine-grade premium birch plywood.

Intended use of the construction product: As internal finishes in floorings.

### Technical data

Tests	Standard	Measurement unit	Result
<b>Classification requirements UNE EN 13.329</b>			
Abrasion resistance	EN 438-2 Part 11	Class	<b>AC6</b>
Impact resistance	EN 438-2 Part 20 and 22		IC 2 (A)
Resistance to staining	EN 438-2 Part 26	Rating ( Group 1 y 2) Rating ( Group 3)	5 5
Resistance to cigarettes burn	EN 438-2 Part 30	Rating	5
Effect of a furniture leg	EN 424	-	No change or damage with foot type 0
Effect of a castor chair	EN 425	-	No change in appearance or damage after 25000 cycles with type W wheels
Thickness swelling	EN 13.329 Annex G	%	< 10
Class of use	UNE EN 13.329	Domestic	23 
		Commercial	32 (A) 
<b>Safety requirements CE</b>			
Reaction to fire	EN 13.501-1	Classification	Bfl-s1
Pentachlorophenol content	EN 438-7 Part 4.10	ppm	≤ 5
Release of formaldehyde	EN 717-2	Class	E1
Water tightness	EN 13.553	Classification	Watertight
Slide resistance	EN 13.893	μ	0,73 (DS)
Electric resistance	EN 1.081	MΩ	825 (antistatic)
Antistatic properties	EN 1.815	KV	< 2
Thermal conductivity	EN 12.524	W/(m²K)	0,17

### Product dimension features

- ✓ Length and width:
  - 188 x 2450 mm
  - 290 x 2450 mm
  - 590 x 2450 mm
- ✓ Thickness
  - 14 mm
- ✓ Weight by surface area unit

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Kg/m <sup>2</sup>	14 mm Standard
NATURFLOOR - W	11,5

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UN CPC code: 314 Boards and panels

## LCA information

Declared unit: The declared unit is the baseline reference for which all information is collected. In this study, the declared business unit “1m<sup>2</sup> of board” of the following typology:

**FLOOR USE BOARDS**  
NATURFLOOR - W 14mm

Reference service life: Not relevant for this EPD.

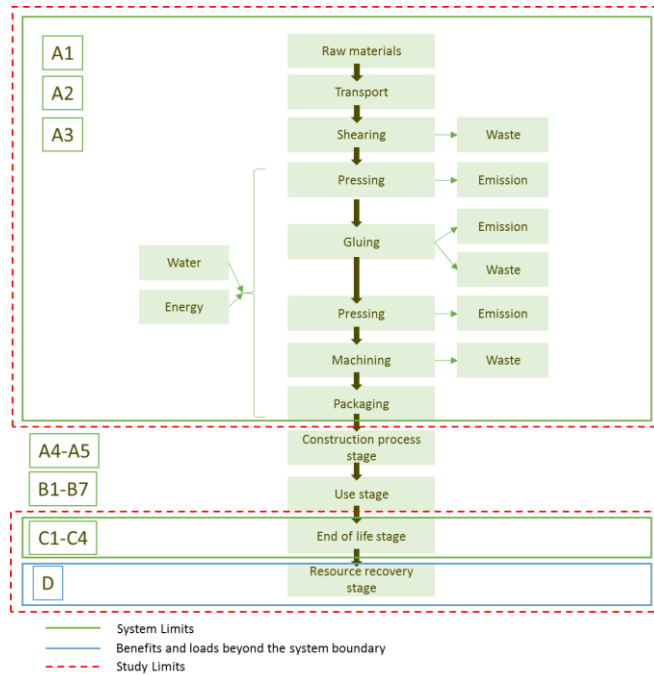
Geographical scope: The geographical scope of this EPD is international.

Time representativeness: The data collection from factory (primary data) is from 2020/01/01 to 2020/12/31. The electricity mix is from 2020 year. In this study, no datasets older than 10 years were used.

Database(s) and LCA software used: All the data used to model the process and obtain the Life Cycle Inventory are specific data and they are representative of the different processes implemented during the manufacturing process. The data has been measured directly at the company's own premises. In addition, the most complete and highest quality European life cycle inventory database, Ecoinvent 3.6, has been used, as this database contains the most extensive and updated information and its scope coincides with the geographical, technological and temporal area of the project. The LCA was modelled with Simapro 9.1.1.1.

Description of system boundaries: According to the standard UNE-EN 15804\_2012+A2\_2020 (MARCH 2020) and PCR 2019:14 CONSTRUCTION PRODUCTS (version 1.11) the system boundary is cradle to gate with modules C1–C4 and module D (A1–A3 + C + D). The life cycle stages A4–A5, B1–B7 were excluded from the LCA study.

System diagram:



## System boundaries

### Manufacturing process:

The manufacturing process takes place over 5 steps:

1. Raw material reception and selection. In some cases, shearing is necessary to achieve appropriate dimensions.
2. Preparing packages, joining different layers of film and paper to be pressed later on.
3. Pressing.
4. Machining the boards, adjusting them to client requirements with an automatic saw.
5. Packaging the end product with the different protective layers required and final product is stored until dispatch.

### Author of the Life Cycle Assessment:

IK ingenieria

Av. Cervantes 51, Edif. 10, planta 5, dpto.

48970 Basauri, Bizkaia (Spain)

### Data quality

The environmental impact of the HPL boards has been calculated. It is based on the international standards established for the development of environmental product declarations, such as ISO 14025 for the preparation of the environmental product declaration, ISO 14040 and ISO 14044 for the preparation of the life cycle analysis, UNE-EN 15804:2012+A2:2020 (MARCH 2020) and the Product Category Rules PCR - "2019:14 Construction products " (Version 1.11) of the CPC 314.

Data for raw material supply, transport to fabrication plant and production (A1-A3) is based on specific consumption data for the factory at Bera. Generic background datasets were used for the downstream processes. SimaPro v9.1.1.1. software was used to prepare the life cycle analysis together with the Ecoinvent 3.6 database. Characterization factors from EN15804: 2012 + A2:2019.

The geographical coverage is international. Technological coverage is typical or average.

## Assumptions

The modularity principle, as well as the polluter-payer principle have been followed. The following assumptions have been made in this EPD:

- ✓ It does not include the manufacturing processes of the capital goods or spare parts and/or maintenance with a life of more than three years.
- ✓ The environmental impact of infrastructure for general management, office, and headquarters operations is not included.
- ✓ The impact caused by people (common activities, travel for work...) will not be considered.
- ✓ The processes associated with fuel production are intrinsically included in the indicators in ECOINVENT's database used in carrying out the LCA.
- ✓ The environmental impact of external transport has been calculated using lorries from the ECOINVENT 3.6 database, EURO 6. These lorries have been selected to reflect the most realistic scenario possible.

## Cut-off rules

The standard ISO 14025 and the PCR -"2019:14 CONSTRUCTION PRODUCTS" indicate that the life cycle inventory data should include a minimum of 95% of the total inputs (materials and energy) for each stage. This cut-off rule does not apply for hazardous materials and substances. No such cut-off criteria have been taken into account in this study.

## Allocation

Where necessary, such as auxiliary materials, water, waste generation, emissions and energy consumption, an allocation based in mass has been used.

## Greenhouse gas emission from the use of electricity in the manufacturing phase

The mix of renewable energy used to produce certain raw materials and the in-factory production process is based in the year 2020. Specific renewable electricity mix with Guarantee of Origin, high voltage (direct emissions and losses in grid) electricity is considered for the manufacturing process.

Electricity mix	Amount	Units
Specific electricity mix with GoO	0,04	Kg CO2-eqv/kWh

## LCA Scenarios and additional technical information

### Dismantling/demolition (module C1):

Since they are not products with a structural use, the energy consumption of this phase is considered not relevant.

### Transport (module C2):

With a collection rate of 100%, the transports are carried out by lorry (EURO 6) over 50 km.

### Waste processing (modules C3 and C4):

A recycling ratio of 43,53 %, energy recovery ratio of 41,79 %, incineration ratio of 13,78 % and a landfilled ratio of 0,9% is considered in accordance with the publication of the H2020 project "Absorbing the Potential of Wood Waste in EU Regions and Industrial Bio-based Ecosystems — BioReg" document "D1.1 EUROPEAN WOOD WASTE STATISTICS REPORT FOR RECIPIENT AND MODEL REGIONS" for Europe

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(<https://ec.europa.eu/research/participants/documents/downloadPublic?documentIds=080166e5bf1792ce&appId=PPGMS>). These percentages are representative of the areas where the product is marketed.

In module C3 the boards waste treatment (chipping) is considered. In module C4 the impact of incineration process and the landfilling.

Recyclability potentials (module D):

Module D contains credits from the recycling and energy recovery of the boards in module C3. For the recycling process is considered that the board is collected and recycled for use in substitution of virgin wood chips. For energy recovery, use in substitution electricity and natural gas to produce heat.



Modules declared, geographical scope, share of specific data (in GWP-GHG indicator) and data variation:

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage	
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential	
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	
Modules declared	X	X	X	ND	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X	
Geography	EU	EU	EU	ND	ND	ND	ND	ND	ND	ND	ND	ND	GLO	GLO	GLO	GLO	GLO	
Specific data used	>90%					-	-	-	-	-	-	-	-	-	-	-	-	
Variation – products	No applicable					-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	No applicable					-	-	-	-	-	-	-	-	-	-	-	-	-

## Content information

Product components	NATURFLOOR – W 14 mm		
	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Synthetic resins	1,60E+00	0,00%	0,00%
Wood veneer	8,19E+00	0,00%	100,00%
Paper	1,72E+00	25,00%	100,00%
<b>TOTAL</b>	<b>1,15E+01</b>	<b>3,73%</b>	<b>86,13%</b>
Packaging materials	Weight, kg	Weight-% (versus the product)	
Cardboard	2,42E-01	2,11%	
Wood	2,82E-01	2,45%	
Steel	3,26E-02	0,28%	
<b>TOTAL</b>	<b>5,57E-01</b>	<b>4,84%</b>	

**Packaging:** Product packaging includes different layers of plastic films, a sacrifice board, wooden wedges and a polyester hoop. Panels that do not meet quality standards are reused as sacrifice boards for packaging.

No substances included in the Candidate List of Substances of Very High Concern for authorization under REACH Regulations are present in this boards manufactured by Maderas Mejoradas Industrial s.a., either above the threshold for registration with the European Chemicals Agency or above 0,1% (wt/wt).

## Environmental Information

## Potential environmental impact – mandatory indicators according to EN 15804

Results per declared unit							
Indicator	Unit	A1-A3	C1	C2	C3	C4	D
<b>NATURFLOOR - W 14 mm</b>							
GWP-fossil	kg CO2 eq.	1,77E+01	0,00E+00	9,47E-02	9,98E-02	1,48E-02	-6,71E+00
GWP-biogenic	kg CO2 eq.	-2,93E+01	0,00E+00	5,09E-05	3,00E-03	2,33E+00	8,09E+00
GWP-luluc	kg CO2 eq.	8,83E-02	0,00E+00	3,37E-05	2,24E-04	3,97E-06	-2,06E-02
GWP-total	kg CO2 eq.	-1,15E+01	0,00E+00	9,48E-02	1,03E-01	2,35E+00	1,36E+00
ODP	kg CFC 11 eq.	2,14E-06	0,00E+00	2,16E-08	8,35E-09	2,10E-09	-8,84E-07
AP	mol H+ eq.	9,99E-02	0,00E+00	2,72E-04	5,51E-04	5,04E-04	-2,49E-02
EP-freshwater	kg PO43- eq.	2,85E-03	0,00E+00	2,32E-06	3,16E-05	9,13E-07	-4,05E-04
EP-freshwater	kg P eq.	9,27E-04	0,00E+00	7,57E-07	1,03E-05	2,98E-07	-1,32E-04
EP-marine	kg N eq.	4,39E-02	0,00E+00	5,39E-05	7,37E-05	2,37E-04	-3,71E-03
EP-terrestrial	mol N eq.	3,09E-01	0,00E+00	6,03E-04	9,04E-04	2,68E-03	-4,46E-02
POCP	kg NMVOC eq.	1,42E-01	0,00E+00	2,31E-04	2,35E-04	7,04E-04	-1,40E-02
ADP-minerals&metals*	kg Sb eq.	2,20E-04	0,00E+00	2,62E-06	3,85E-07	9,23E-08	-3,06E-05
ADP-fossil*	MJ	3,45E+02	0,00E+00	1,43E+00	2,02E+00	1,67E-01	-1,25E+02
WDP	m3 eq	1,49E+01	0,00E+00	4,05E-03	2,27E-02	5,20E-03	-2,11E+00

Acronyms

GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

\* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

## Potential environmental impact – additional mandatory and voluntary indicators

Results per declared unit						
Indicator	A1-A3	C1	C2	C3	C4	D
<b>NATURFLOOR - W 14 mm</b>						
GWP-GHGjError! Marcador no definido.	1,74E+01	0,00E+00	9,40E-02	9,91E-02	2,10E-02	-6,65E+00

## Use of resources

Results per declared unit							
Indicator	Unit	A1-A3	C1	C2	C3	C4	D
<b>NATURFLOOR - W 14 mm</b>							
PERE	MJ	2,87E+02	0,00E+00	2,05E-02	3,39E-01	7,31E-03	-3,25E+01
PERM	MJ	2,22E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	5,08E+02	0,00E+00	2,05E-02	3,39E-01	7,31E-03	-3,25E+01
PENRE	MJ	3,31E+02	0,00E+00	1,43E+00	2,02E+00	1,67E-01	-1,25E+02
PENRM	MJ.	1,46E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	3,45E+02	0,00E+00	1,43E+00	2,02E+00	1,67E-01	-1,25E+02
SM	kg	4,86E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m3	3,89E-01	0,00E+00	1,53E-04	1,69E-03	8,00E-04	-3,82E-02

Acronyms

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

## Waste production

Indicator	Unit	Results per declared unit					
		A1-A3	C1	C2	C3	C4	D
<b>NATURFLOOR - W 14 mm</b>							
Hazardous waste disposed	kg	7,09E-02	0,00E+00	3,75E-06	9,02E-07	4,35E-07	-1,27E-04
Non-hazardous waste disposed	kg	2,28E+00	0,00E+00	6,97E-02	1,13E-02	1,17E-01	-2,52E-01
Radioactive waste disposed	kg	9,18E-04	0,00E+00	9,76E-06	1,42E-05	5,85E-07	-4,50E-04

## Output flows

Indicator	Unit	Results declared unit					
		A1-A3	C1	C2	C3	C4	D
<b>NATURFLOOR - W 14 mm</b>							
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	2,05E+00	0,00E+00	0,00E+00	5,01E+00	0,00E+00	0,00E+00
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	4,81E+00	0,00E+00	0,00E+00
Exported energy, electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,25E+01
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,80E+01

## Information on biogenic carbon content

BIOGENIC CARBON CONTENT	Unit	Results per declared unit
		QUANTITY
<b>NATURFLOOR – W 14 mm</b>		
Biogenic carbon content in product	kg C	4,23E+00
Biogenic carbon content in packaging	kg C	2,49E-01

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Additional information

The technical datasheet and the safety datasheet can be found in the following webpage:  
[https://www.parklex.com/technical-area\](https://www.parklex.com/technical-area)

## Information related to Sector EPD

This is an individual EPD®

## Differences versus previous versions

This is the first version of the EPD®.

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## References

- General Programme Instruction of the International EPD®System. Version 3.01.
- ISO 14020:2000 Environmental labels and declarations-General principles.
- ISO 14025:2010 Environmental labels and declarations-Type III Environmental Declarations-Principles and procedures.
- ISO 14040:2006 Environmental Management-Life Cycle Assessment-Principles and framework.
- ISO 14044:2006 Environmental Management-Life Cycle Assessment-Requirements and guidelines.
- PCR 2019:14 Construction products (EN 15804: A2) version 1.11
- EN 15804:2012+A2:2019 Sustainability of construction works-Environmental Product Declarations-Core rules for the product category of construction products.

## VERIFICATION STATEMENT CERTIFICATE CERTIFICADO DE DECLARACIÓN DE VERIFICACIÓN

Certificate No. / Certificado nº: EPD00902

TECNALIA R&I CERTIFICACION S.L., confirms that independent third-party verification has been conducted of the Environmental Product Declaration (EPD) on behalf of:

TECNALIA R&I CERTIFICACION S.L., confirma que se ha realizado verificación de tercera parte independiente de la Declaración Ambiental de Producto (DAP) en nombre de:

**PARKLEX PRODEMA INT. S.L.U.**  
**Bº San Miguel 9**  
**20250 LEGORRETA (Gipuzkoa)**

for the following product(s):  
para el siguiente(s) producto(s):

**Engineered Wood Floor NATURFLOOR - W**  
**Suelo de madera NATURFLOOR - W**

with registration number **S-P-05243** in the International EPD® System ([www.environdec.com](http://www.environdec.com)).  
con número de registro **S-P-05243** en el Sistema Internacional EPD® ([www.environdec.com](http://www.environdec.com)).

it's in conformity with:  
es conforme con:

- **ISO 14025:2010 Environmental labels and declarations. Type III environmental declarations.**
- **General Programme Instructions for the International EPD® System v.3.01.**
- **PCR 2019:14 Construction products (EN 15804:A2) version 1.11.**
- **UN CPC 314 Boards and panels.**



Carlos Nazabal Alsua  
Manager

Issued date / Fecha de emisión:	18/01/2022
Update date / Fecha de actualización:	18/01/2022
Valid until / Válido hasta:	16/01/2027
Serial N° / N° Serie:	EPD0090200-E

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**ENAC**  
CERTIFICACION  
Nº 125/C-PR283