

# Environmental product declaration (EPD)

As per EN 15804+A1

## Poplar and phenolic (PF) resin plywood panel, made in France

Data for 1 m<sup>3</sup>



### Collective EPD

This EPD is based on collective EPD approach verified according to the French program INIES and available on site [www.inies.fr](http://www.inies.fr)

#### Issue date

Collective EPD publication date

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#### Valid to

Collective EPD end of validity date

31/12/2024

Realised by



INSTITUT  
TECHNOLOGIQUE

Initiated by

U I P C



Union des Industries  
du Panneau Contreplaqué

## Reading guide

Abbreviations > **LCA** > Life cycle assessment  
**ADP** > Abiotic depletion potential  
**EPD** > Environmental product declaration  
**FDES** > French EPD

**DTU** > French "Unified Technical Documents"  
**PCR** > Product category rules  
**FU** > Functional unit  
**WIP** > Waste incineration plant

## General information

Manufacturer > Companies producing plywood panels in France corresponding to the description given below. A list of companies that can claim this french EPD is available from :  
 and information > UIPC - Union des industries du panneau contreplaqué : 23 rue du Départ, 75014, Paris, www.uipc-contreplaqué.fr

Declared by > Institut technologique FCBA : 10 rue Galilée 77420 Champs-sur-Marne, www.fcba.fr

Produced by > Institut technologique FCBA : 10 rue Galilée 77420 Champs-sur-Marne, www.fcba.fr

EPD information > Collective EPD from 'cradle-to-gate and end of life of product' (modules A1 to A3 and C1 to C4 + D)

Issued > 06/05/2019

Valid until > 31/12/2024

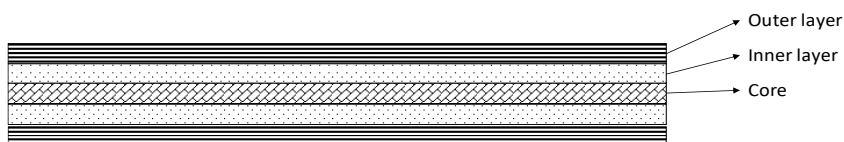
Warning on > EPD comparison is possible by ensuring that :

- comparability
- the same functional requirements as defined by the 2 EPD are met, and
  - the environmental and technical performances of any assembled systems, components, or products excluded are the same, and
  - the amounts of any material excluded are the same, and
  - excluded processes or life cycle stages are the same, and
  - the influence of the product systems on the operational aspects and impacts of the building are taken into account.

## Product description

Name and identification > Poplar and phenolic (PF) resin plywood panel, made in France

Visual >  
 representation



Main components > Following table presents the main components of the installed product and the quantity by functional unit

Component	Material	Weight (kg / FU)	Volume (m <sup>3</sup> / FU)
Wood	Wood (poplar)	417	1
Glue	Phenolic (pf) resin	68	0
<b>TOTAL</b>		<b>486</b>	<b>1</b>

Other characteristics > None.

Use > -

Suitability for use > The plywood panel must comply with the following standards requirements EN 636 - Plywood - Specifications.

Reference service life > According to plywood use.

Content declaration > The product does not contain substances from the list of substances of very high concern that are candidates for authorization by the European Chemicals Agency.

Carbon storage > The following information relates in particular to the storage of carbon are given as complementary environmental information.  
 and biosourced content

Parameter	Unit	Value
Biogenic carbon content	kg CO <sub>2</sub> éq. / FU	686,7
Biosourced content	kg / FU	417,0

Manufacturing process > The main manufacturing stages of the product are: cutting, debarking, peeling, trimming, drying, sizing, pressing, edging and sanding.

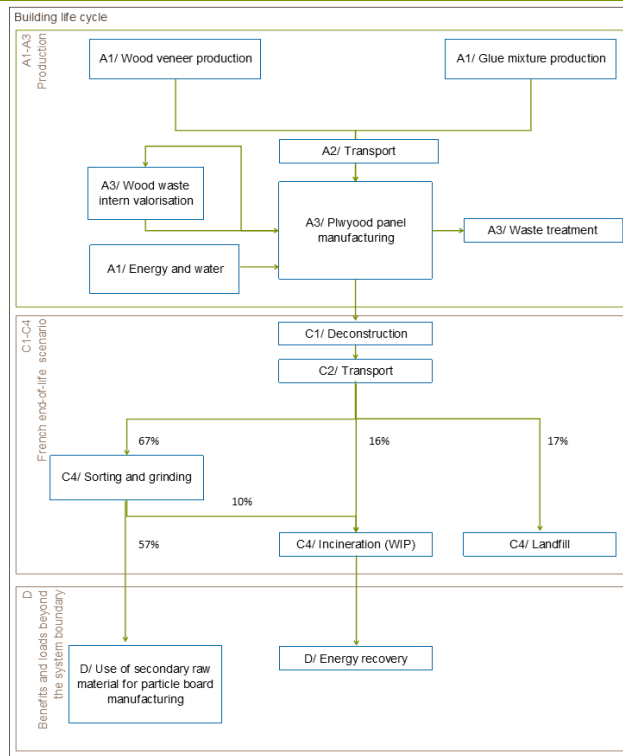
Distribution and installation > Packaging materials aren't included.

# LCA rules

PCR > EN 15804+A1 and EN 16485 are used as PCR.

Reference flow > 1 m<sup>3</sup> of surface using a plywood panel of poplar and phenolic (PF) resin.

Process flow >  
diagram



Cut-off rules > All material and energy fluxes known to be capable of causing significant emissions to air, water or soil have been included.

Allocations > Losses generated during manufacturing were accounted for as waste and 100% allocated to the product. In accordance with EN 16485, the energy and biogenic carbon contents have been allocated to reflect the physical flows.

Data quality > Primary data come from the average data collected on site (reference year 2016).  
Secondary data come from ecoinvent database version 3 and the LCA database developed by FCBA (based on the report DHUP/CODIFAB/FBF/CSTB/FCBA 2012)

## Environmental parameters from the LCA

		Product stage		End-of-life stage					Life cycle	Benefices and loads beyond the system boundary
		Raw material supply, transport and manufacturing	Deconstruction, demolition	Transport	Waste processing	Disposal	Sub-total	Sub-total	Reuse, recovery and/or recycling	
Parameters describing environmental impacts		A1-A3	C1	C2	C3	C4	C1-C4	A-C	D	
Global warming potential	kg CO <sub>2</sub> éq. / FU	-448		2,82	397	237	637	189	-138	
Depletion potential of the stratospheric ozone layer	kg CFC-11 éq. / FU	4,52 E-05		4,34 E-07	4,87 E-07	4,77 E-07	1,40 E-06	4,66 E-05	-1,48 E-05	
Acidification potential of soil and water	kg SO <sub>2</sub> éq. / FU	1,44		0,0158	0,0289	0,034	0,0786	1,52	-0,341	
Eutrophication potential	kg PO <sub>4</sub> <sup>3-</sup> éq. / FU	0,303		0,00354	0,00609	0,00901	0,0186	0,321	-0,00415	
Formation potential of tropospheric ozone	kg éthène éq. / FU	0,126		0,000456	0,00081	0,0106	0,0119	0,138	-0,0172	
Abiotic depletion potential (ADP-elements) for non fossil resources	kg Sb éq. / FU	7,60 E-05		2,99 E-06	4,62 E-06	3,32 E-06	1,09 E-05	8,69 E-05	-2,17 E-05	
Abiotic depletion potential (ADP-elements) for fossil resources	MJ / FU	4 040		41,7	59,1	32,2	133	4 170	-2 020	
Air pollution	m <sup>3</sup> / FU	51 100		205	481	1 300	1 990	53 100	-2 110	
Water pollution	m <sup>3</sup> / FU	205		0,915	1,8	1,8	4,51	209	-12,9	
<b>Parameters describing resource use</b>										
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	MJ / FU	4 880		0,27	-17,3	0,584	-16,5	4 860	931	
Use of renewable primary energy resources used as raw materials	MJ / FU	7 010			-3 970		-3 970	3 040		
Total use of renewable primary energy resources	MJ / FU	11 900		0,27	-3 990	0,584	-3 990	7 900	931	
Use of non renewable primary energy excluding non renewable primary energy resources used as raw materials	MJ / FU	4 800		43,1	1 220	35,9	1 300	6 110	-2 630	
Use of non renewable primary energy resources used as raw materials	MJ / FU	2 050			-1 160		-1 160	888		
Total use of non renewable primary energy resources	MJ / FU	6 850		43,1	60,9	35,9	140	6 990	-2 630	
Use of secondary material	kg / FU	0,000806						0,000806		
Use of renewable secondary fuels	MJ / FU									
Use of non renewable secondary fuels	MJ / FU									
Net use of fresh water	m <sup>3</sup> / FU	0,723		0,00613	0,0076	0,13	0,143	0,866	-0,389	
<b>Parameters describing waste categories</b>										
Hazardous waste disposed	kg / FU	2,11		0,0147	0,0736	1,47	1,56	3,68	-0,991	
Non hazardous waste disposed	kg / FU	14,4		0,158	0,186	89,1	89,4	104	-15,2	
Radioactive waste disposed	kg / FU	0,0492		1,72 E-05	2,42 E-05	0,000141	0,000182	0,0494	-0,00864	
<b>Parameters describing output flow</b>										
Components for re-use	kg / FU									
Materials for recycling	kg / FU	0,0393			260	45,6	306	306	7,5	
Materials for energy recovery	kg / FU	-368						-368		
Materials for energy recovery (heat)	MJ / FU					346	346	346		
Materials for energy recovery (electricity)	kWh / FU					50	50	50		

## Scenarios and additional technical information

Stage		Parameter	Value	
<b>Product stage</b>	A1-A3 Raw material, transport and manufacturing	Wood specie(s)	Poplar	
		Glue type	phenolic (PF) resin	
		Weight of glue	68 kg/FU	
		Volumic mass	486 kg/FU	
Stage		Parameter	Value	
<b>End-of-life stage</b>	C	End-of-life scenario	The end-of-life is based on the average french end-of-life scenario for construction wood waste : 67% of wood waste reach a sorting platform (with subsequent recycling of wood into wood particle board and incineration of grinding 'dust'), 16% are incinerated with energy recovery, 17% are landfilled. This scenario is described in the following report : FCBA CSTB DHUP CODIFAB FBF, Convention DHUP CSTB 2009 Action 33 Sous-action 6 – ACV & DEP pour des produits et composants de la construction bois – Volet 2 Prise en compte de la fin de vie des produits bois – Phase 3 Modélisation ACV et calculs d'impacts pour le recyclage matière et la réutilisation, 2012.	
		Collection proces	Collected separately	325 kg / FU
			Collected with mixed construction waste	160,1 kg / FU
		Recovery system	Reuse	None
			Recycling	325 kg / FU
			Energy recovery	None
		Disposal	Incineration	77,6 kg / FU
			Landfill	82,5 kg / FU
<b>Reuse, recovery and/or recycling potential</b>	D	Stage description	According to appendix H of the EN 15804/CN (french complement), the benefits and loads beyond the system's boundaries include : - at recycling level, transport and transformation of wood chips as secondary raw material for wood particle board manufacturing, and substitution of virgin raw material (forestry, logging, transport, grinding, drying), - at incineration level, substitution of recovered thermal and electrical energy. The different processes are described in the report quoted above.	