

Environmental product declaration (EPD)

As per EN 15804+A1

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

Data for 1 m³



Collective EPD

This EPD are based on collective EPD approach verified according to the French program INIES and available on site www.inies.fr

Issue date

Collective EPD publication date

06/05/2019

Realised by



INSTITUT
TECHNOLOGIQUE

Initiated by
UIPC

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-contreplaque.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 > 06/05/2024

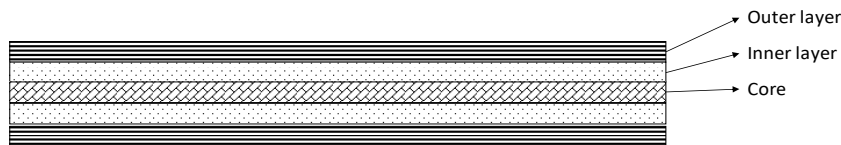
Warning on comparability > EPD comparison is possible by ensuring that :

- 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 ³ / FU)
Wood	Wood (poplar)	417	1
Glue	Phenolic (pf) resin	68	0
TOTAL		486	1

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 ₂ 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.

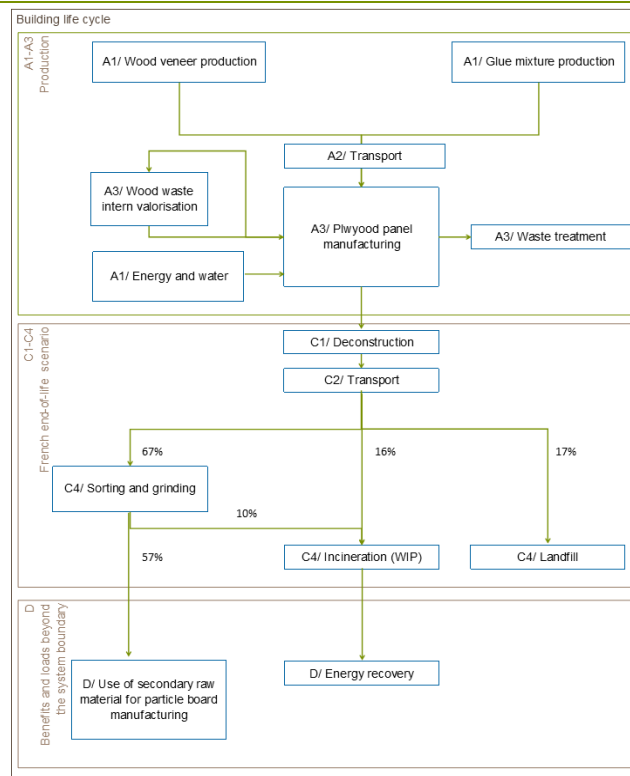
Distribution and installation Packaging materials aren't included.

LCA rules

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

Reference flow > 1 m³ 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	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 ₂ 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 ₂ éq. / FU	1,44		0,0158	0,0289	0,034	0,0786	1,52	-0,341
Eutrophication potential	kg PO ₄ ³⁻ 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 ³ / FU	51 100		205	481	1 300	1 990	53 100	-2 110
Water pollution	m ³ / FU	205		0,915	1,8	1,8	4,51	209	-12,9
Parameters describing resource use									
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 ³ / FU	0,723		0,00613	0,0076	0,13	0,143	0,866	-0,389
Parameters describing waste categories									
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
Parameters describing output flow									
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	
Product stage	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	
End-of-life stage	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
Reuse, recovery and/or recycling potential	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.	