



**PE INTERNATIONAL**  
EXPERTS IN SUSTAINABILITY

Final Report

# **Life Cycle Assessment of Rough-sawn Kiln-dried Hardwood Lumber**

for

**AHEC – American Hardwood Export Council**

by

**PE INTERNATIONAL AG**

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Contacts:

Ekaterina Druzhinina  
Marc Binder  
Dr. Sabine Deimling  
Adolf Daniel Merl

PE INTERNATIONAL AG  
Hauptstraße 111-113  
70771 Leinfelden-Echterdingen  
Germany

Phone           +49 711 341817-0  
Fax               +49 711 341817-25

E-mail           [m.binder@pe-international.com](mailto:m.binder@pe-international.com)  
                      [e.druzhinina@pe-international.com](mailto:e.druzhinina@pe-international.com)

Internet         [www.pe-international.com](http://www.pe-international.com)



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## ACRONYMS

ADEME	French Environment and Energy Management Agency (French: Agence de l'Environnement et de la Maîtrise de l'Energie)
AHEC	American Hardwood Export Council
AP	Acidification Potential
C	Carbon
CFC	Hydro chlorofluorocarbons
cm	Centimetre
CML	Institute of Environmental Sciences of Leiden University (Dutch: Centre for Milieukunde Leiden)
CO <sub>2</sub>	Carbon dioxide
CORRIM	Consortium for Research on Renewable Industrial Materials
CPA	Corrugated Packaging Alliance
dLUC	Direct Land Use Change
ECO	Environmental Construction Organisation
ELCD	European Reference Life Cycle Database
EoL	End of Life
EP	Eutrophication Potential
EPA	Environmental Protection Agency
EPD	Environmental Product Declaration
EURO4	European Emission Standard – EURO4
FU	Functional unit
G&S	Goal and Scope
GaBi5	GaBi 5 is a software for Life Cycle Assessment. GaBi stands for "Holistic balance" (German: Ganzheitliche Bilanzierung)
GWP	Global Warming Potential
H <sup>+</sup>	Hydrogen Ion
Ha	Hectare
IBU	Construction and Environment Institute (German: Institut Bauen und Umwelt e.V.)
ILCD	International Reference Life Cycle Data System
iLUC	Indirect Land Use Change
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organisation for Standardisation
JRC	European Commission Joint Research Centre
kg	Kilogram
LCA	Life Cycle Assessment
LCI	Life Cycle Inventory
LCIA	Life Cycle Impact Assessment
LUC	Land Use Change
m <sup>2</sup>	Square metre

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m <sup>3</sup>	Cubic metre
MBF	Thousand board feet. In this study the conversion factor is 2.362 m <sup>3</sup> /MBF
MC	Moisture content
MJ	Mega joule
NO <sub>x</sub>	Nitrogen Oxides
NREL	National Renewable Energy Laboratory (United States)
ODP	Ozone Depletion Potential
PCR	Product Category Rules
PE	Primary Energy
POCP	Photochemical Ozone Creation Potential
ppm	Parts per million
CFC-11	Trichlorofluoromethane (R11)
SO <sub>2</sub>	Sulphur dioxide
TRACI	Tool for the Reduction and Assessment of Chemical and Other Environmental Impacts
UK	United Kingdom
US	United States of America
US LCI	United States Life Cycle Inventory Database