

ARBOR LIFE CYCLE ASSESSMENT (LCA)



Indicator name and abbreviation (EN)	Unit (EN)	Total A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D		
Core environmental impact indicators (MANDATORY)																		
Global warming potential - fossil fuels (GWP-fossil)	kg CO ₂ eq	4 34E+00	3 11E+00	1 33E+00	ND	ND	ND	ND	ND	ND	ND	ND	3 73E-02	3 73E-03	1 90E-03	3 55E-03	-2 17E-02	
Global warming potential - biogenic (GWP-biogenic)	kg CO ₂ eq	3 40E-01	1 97E-03	-6 00E-02	ND	ND	ND	ND	ND	ND	ND	ND	2 20E-05	5 94E-06	1 64E-01	2 21E-02	-2 51E-05	
Global warming potential - land use and land use change (GWP-landuc)	kg CO ₂ eq	6 55E-03	1 94E-04	1 30E-01	ND	ND	ND	ND	ND	ND	ND	ND	6 09E-06	1 55E-06	5 52E-07	2 97E-06	-6 77E-06	
Global warming potential - total (GWP-total)	kg CO ₂ eq	4 72E+00	3 12E+00	1 39E+00	ND	ND	ND	ND	ND	ND	ND	ND	1 37E-02	3 74E-03	1 86E-01	2 56E-02	-5 46E-01	
Depletion potential of the stratospheric ozone layer (ODP)	kg CFC-11 eq	2 89E-07	7 08E-07	1 19E-07	ND	ND	ND	ND	ND	ND	ND	ND	ND	7 69E-10	8 29E-10	1 18E-10	8 48E-10	-1 60E-09
Acidification potential - accumulated exceedance (AP)	mol H ⁺ eq	3 64E-02	1 61E-02	8 63E-03	ND	ND	ND	ND	ND	ND	ND	ND	4 34E-05	1 54E-05	2 32E-05	2 40E-05	-5 60E-05	
Eutrophication potential - freshwater (EP-freshwater)	kg P eq	1 24E-03	4 29E-05	3 90E-04	ND	ND	ND	ND	ND	ND	ND	ND	1 02E-05	2 82E-07	4 42E-07	6 18E-07	-1 05E-05	
Eutrophication potential - marine (EP-marine)	kg N eq	1 29E-02	5 89E-03	1 62E-03	ND	ND	ND	ND	ND	ND	ND	ND	8 10E-06	4 66E-06	2 62E-05	1 11E-04	-1 10E-04	
Eutrophication potential - terrestrial (EP-terrestrial)	mol N eq	1 20E-01	6 00E-02	2 00E-02	ND	ND	ND	ND	ND	ND	ND	ND	6 89E-05	4 97E-05	1 01E-04	8 33E-05	-9 30E-05	
Photochemical ozone creation potential (POCP)	kg NMVOC eq	3 26E-02	1 66E-02	4 28E-03	ND	ND	ND	ND	ND	ND	ND	ND	1 99E-05	1 48E-05	4 86E-05	3 14E-05	-3 12E-05	
Abiotic depletion potential - non-fossil resources (ADPE)	kg Sb eq	2 43E-05	7 96E-07	1 94E-05	ND	ND	ND	ND	ND	ND	ND	ND	2 22E-08	1 22E-08	3 28E-09	9 06E-09	-2 89E-08	
Abiotic depletion potential - fossil resources (ADPF)	MJ, net calorific value	2 88E+01	9 00E-01	9 87E+00	ND	ND	ND	ND	ND	ND	ND	ND	1 14E-01	6 37E-03	3 78E-03	9 27E-03	-1 25E-01	
Water (user) deprivation potential (WDP)	m ³ world eq. deprived	1 81E+00	6 00E-02	1 46E+00	ND	ND	ND	ND	ND	ND	ND	ND	3 51E-03	2 60E-04	-2 57E-04	3 00E-03	-4 02E-03	
Additional mandatory environmental impact indicators (MANDATORY)																		
Global warming potential (GWP-GH)	kg CO ₂ eq	4 35E+00	3 11E+00	1 45E+00	ND	ND	ND	ND	ND	ND	ND	ND	1 37E-02	3 73E-03	1 90E-03	3 55E-03	-2 13E-02	
Additional voluntary environmental impact indicators (OPTIONAL)																		
Particulate matter emissions (PM)	Disease incidence	1 02E-06	2 96E-08	8 76E-08	ND	ND	ND	ND	ND	ND	ND	ND	2 18E-10	2 57E-10	5 91E-09	4 63E-10	-2 56E-10	
Ionizing radiation, human health (IRP)	Bq U235 eq	2 81E-01	1 96E-01	4 99E-02	ND	ND	ND	ND	ND	ND	ND	ND	4 94E-03	2 50E-04	3 78E-05	3 16E-04	-5 07E-03	
Eco-toxicity - freshwater (ETP-fw)	CTUe	7 77E+00	2 31E-01	1 67E+00	ND	ND	ND	ND	ND	ND	ND	ND	7 40E-04	1 79E-03	1 18E-02	6 09E-04	-1 43E-03	
Human toxicity, cancer effect (HTP-c)	CTUh	1 15E-08	2 24E-10	1 87E-09	ND	ND	ND	ND	ND	ND	ND	ND	3 42E-12	1 18E-12	1 35E-10	1 82E-12	-4 05E-12	
Human toxicity, non-cancer effects (HTP-nc)	CTUh	2 00E-07	3 94E-08	5 70E-08	ND	ND	ND	ND	ND	ND	ND	ND	3 77E-10	7 66E-11	7 57E-10	6 92E-11	-4 21E-10	
Land use related impacts/Soil quality (SQP)	dimensionless	1 37E+01	9 12E-01	8 91E+00	ND	ND	ND	ND	ND	ND	ND	ND	1 02E-02	4 63E-02	1 55E-02	2 34E-01	-1 21E-02	
Indicators describing resource use (MANDATORY)																		
Use of renewable primary energy, as energy carrier (PERE)	MJ, net calorific value	2 34E+00	1 10E-01	7 20E-01	ND	ND	ND	ND	ND	ND	ND	ND	1 70E-02	4 50E-04	2 27E-04	9 18E-04	-1 74E-02	
Use of renewable primary energy resources used as raw materials (PERM)	MJ, net calorific value	4 84E+01	4 00E-02	1 36E+00	ND	ND	ND	ND	ND	ND	ND	ND	5 35E-03	1 80E-04	1 05E-04	2 94E-04	-5 76E-03	
Total use of renewable primary energy (PERT)	MJ, net calorific value	5 07E+01	1 40E-01	2 08E+00	ND	ND	ND	ND	ND	ND	ND	ND	2 23E-02	6 30E-04	3 32E-04	1 21E-03	-2 31E-02	
Use of non-renewable primary energy, as energy carrier (PENRE)	MJ, net calorific value	2 99E+01	1 07E+00	1 95E+01	ND	ND	ND	ND	ND	ND	ND	ND	1 90E-01	1 00E-02	0 00E+00	1 00E-02	-1 96E-01	
Use of non-renewable primary energy resources used as raw materials (PENRM)	MJ, net calorific value	4 07E+01	4 18E+01	1 37E+01	ND	ND	ND	ND	ND	ND	ND	ND	8 95E-02	4 92E-02	9 75E-03	5 76E-02	-2 24E-01	
Total use of non-renewable primary energy resource (PENRT)	MJ, net calorific value	7 05E+01	4 29E+01	2 43E+01	ND	ND	ND	ND	ND	ND	ND	ND	2 79E-01	5 60E-02	1 40E-02	6 80E-02	-4 20E-01	
Use of secondary material (SM)	kg	4 16E-01	6 69E-03	1 64E-02	ND	ND	ND	ND	ND	ND	ND	ND	5 70E-04	3 89E-05	6 54E-05	1 07E-04	-5 96E-04	
Use of renewable secondary fuels (RSF)	MJ, net calorific value	1 92E-02	1 93E-03	4 97E-03	ND	ND	ND	ND	ND	ND	ND	ND	3 00E-04	6 50E-06	1 44E-06	1 40E-05	-3 12E-04	
Use of non-renewable secondary fuels (NRSF)	MJ, net calorific value	2 13E-01	2 46E-03	1 60E-02	ND	ND	ND	ND	ND	ND	ND	ND	3 90E-04	9 95E-06	7 50E-06	1 90E-05	-4 09E-04	
Net use of fresh water (FW)	m ³	5 51E-02	1 46E-03	3 71E-02	ND	ND	ND	ND	ND	ND	ND	ND	8 21E-05	6 43E-06	-5 84E-06	7 22E-05	-9 42E-05	
Environmental information describing waste categories (MANDATORY)																		
Hazardous waste disposed (HWD)	kg	5 21E+00	2 10E-01	4 43E+00	ND	ND	ND	ND	ND	ND	ND	ND	5 01E-02	1 46E-03	1 06E-03	2 12E-03	-5 16E-02	
Non-hazardous waste disposed (NHWD)	kg	1 81E+03	2 23E-02	1 76E-01	ND	ND	ND	ND	ND	ND	ND	ND	8 90E-04	2 76E-03	7 79E-02	2 85E-01	-6 01E-04	
Radioactive waste disposed (RWD)	kg	2 24E-03	4 36E-04	3 70E-04	ND	ND	ND	ND	ND	ND	ND	ND	4 69E-05	7 89E-07	2 17E-07	1 30E-06	-4 82E-05	
Environmental information describing output flows (MANDATORY)																		
Components for re-use (CRU)	kg	0 00E+00	0 00E+00	0 00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0 00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00	
Materials for recycling (MFR)	kg	4 59E-02	5 07E-03	1 28E-02	ND	ND	ND	ND	ND	ND	ND	ND	5 20E-04	2 81E-05	2 37E-05	4 11E-05	-5 42E-04	
Materials for energy recovery (MER)	kg	1 11E-02	1 72E-03	2 27E-03	ND	ND	ND	ND	ND	ND	ND	ND	1 15E-05	1 53E-05	1 81E-05	1 86E-05	-1 13E-05	
Exported electrical energy (EEE)	MJ, net calorific value	0 00E+00	0 00E+00	0 00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0 00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00	
Exported thermal energy (EET)	MJ, net calorific value	0 00E+00	0 00E+00	0 00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0 00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00	