

Annex to Life Cycle Assessment Verification

Statement

Standard ISO 14040:2006, ISO 14044:2006

Certificate Registr. No. GRGTLCA2025088

Report No. GRGT-LCA-2025088

Result:

Stage	Raw materials	Production	Distribution / Retail	Consumer use	Disposal/ Recycling	Total
Climate change, short term (kg CO2 eq)	1.92E+02	1.25E+00	1.91E+00	2.70E+01	1.05E+00	2.23E+02
Climate change, long term (kg CO2 eq)	1.82E+02	1.19E+00	1.79E+00	2.56E+01	1.05E+00	2.12E+02
Fossil and nuclear energy use (MJ deprived)	2.56E+03	1.36E+01	2.44E+01	6.34E+02	7.24E-01	3.23E+03
Mineral resources use (kg deprived)	9.29E+00	5.30E-03	2.93E-02	2.34E-01	3.57E-03	9.56E+00
Photochemical oxidant formation (kg NMVOC eq)	8.65E-01	4.27E-03	4.13E-02	6.88E-02	7.49E-04	9.80E-01
Ozone layer depletion (kg CFC-11 eq)	7.85E-06	6.49E-09	2.98E-08	5.38E-07	9.52E-10	8.43E-06
Freshwater ecotoxicity (CTUe)	3.59E+07	4.62E+04	5.90E+03	8.67E+05	1.01E+05	3.69E+07
Human toxicity cancer (CTUh)	2.25E-04	2.69E-07	3.88E-07	5.47E-06	2.51E-07	2.31E-04
Human toxicity non-cancer (CTUh)	2.44E-04	3.79E-07	1.25E-07	9.16E-06	2.54E-07	2.54E-04
Freshwater acidification (kg SO2 eq)	2.72E-06	1.39E-08	1.01E-07	3.00E-07	9.97E-10	3.13E-06
Terrestrial acidification (kg SO2 eq)	2.29E-03	1.12E-05	8.27E-05	2.41E-04	8.61E-07	2.62E-03
Freshwater eutrophication (kg PO4 eq)	3.53E-02	5.32E-06	2.92E-06	4.60E-05	1.18E-05	3.54E-02
Marine eutrophication (kg N eq)	3.37E-01	8.51E-05	7.67E-04	1.43E-03	2.82E-05	3.40E-01
Particulate matter formation (kgPM2.5eq)	1.27E-01	8.96E-04	1.76E-03	8.54E-03	4.16E-05	1.39E-01

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Ionizing radiation (Bq C-14 eq)	1.71E+03	7.53E+06	9.90E-01	1.71E+03	9.55E-02	7.53E+06
Land transformation biodiversity (m2yr arable)	3.53E-02	1.23E-04	9.82E-05	3.04E-03	1.03E-05	3.86E-02
Land occupation, biodiversity (m2yr arable)	7.26E+00	1.47E-02	5.80E-03	7.33E-01	1.83E-03	8.02E+00
Water scarcity (m3 world eq)	4.68E+01	5.01E-01	5.28E-02	6.42E+00	7.84E-02	5.39E+01
Geography boundary	China	China	EU	Worldwide	Worldwide	
Analysis method	IMPACT World+ Midpoint V1.06			System boundary of product	Cradle to Grave	

Stage	Raw materials	Production	Distribution/ Retail	Consumer use	Disposal/ Recycling	Total
Global warming (kg CO2 eq)	1.92E+02	1.25E+00	1.91E+00	2.70E+01	1.05E+00	2.23E+02
Stratospheric ozone depletion (kg CFC11 eq)	8.94E-05	3.00E-07	9.04E-07	1.25E-05	1.05E-06	1.04E-04
Ionizing radiation (kBo Co-60 eq)	1.47E+01	1.40E+05	8.33E-03	1.59E+01	8.10E-04	1.40E+05
Ozone formation Human health (kg NOx eq)	5.90E-01	3.78E-03	3.58E-02	4.90E-02	6.71E-04	6.80E-01
Fine particulate matter formation (kg PM2.5eq)	4.81E-01	2.12E-03	1.12E-02	4.22E-02	1.30E-04	5.37E-01
Ozone formation, Terrestrial ecosystems (kg NOx eq)	6.17E-01	3.80E-03	3.63E-02	5.05E-02	6.79E-04	7.09E-01
Terrestrial acidification (kg SO2 eq)	1.01E+00	4.81E-03	3.47E-02	1.06E-01	3.36E-04	1.16E+00

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Freshwater eutrophication (kg P eq)	2.38E-01	5.79E-04	8.96E-05	2.67E-02	2.08E-04	2.66E-01
Marine eutrophication (kg N eq)	4.47E-02	1.60E-05	1.02E-05	1.85E-03	2.21E-05	4.66E-02
Terrestrial ecotoxicity (kg 1,4-DCB)	2.26E+03	1.41E+00	4.36E+00	7.01E+01	7.22E-01	2.33E+03
Freshwater ecotoxicity (kg 1,4-DCB)	9.25E+01	6.62E-02	2.39E-02	3.75E+00	5.74E-01	9.69E+01
Marine ecotoxicity (kg 1,4-DCB)	1.21E+02	8.46E-02	3.40E-02	4.72E+00	7.47E-01	1.26E+02
Human carcinogenic Toxicity (kg 1,4-DCB)	1.70E+02	2.02E-01	2.96E-01	4.02E+00	1.74E-01	1.74E+02
Human non-carcinogenic toxicity (kg 1,4-DCB)	1.71E+03	1.55E+00	5.11E-01	5.74E+01	1.10E+01	1.78E+03
Land use (m ² a crop eq)	1.31E+01	2.32E-02	1.41E-02	9.89E-01	1.96E-03	1.41E+01
Mineral resource scarcity (kg Cu eq)	6.89E+00	1.84E-03	3.84E-03	1.16E-01	3.91E-04	7.01E+00
Fossil resource scarcity (kg oil eq)	5.02E+01	2.75E-01	5.29E-01	7.34E+00	1.55E-02	5.83E+01
Water consumption (m ³)	1.53E+00	1.23E-02	1.66E-03	3.98E-01	2.20E-03	1.95E+00
Geography boundary	China	China	EU	Worldwide	Worldwide	
Analysis method	ReCiPe 2016 Midpoint (H) V1.11 / World (2010) H			System boundary of product	Cradle to Grave	



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