



Brussels, **XXX**
[...](2020) **XXX** draft

ANNEX 1

ANNEX

to the

Commission Implementing Regulation (EU) .../...

**determining revised benchmark values for free allocation of emission allowances
pursuant to Article 10a(2) of Directive 2003/87/EC of the European Parliament and of
the Council**

ANNEX [...]

Benchmarks

For the purposes of this Annex, the definitions of products covered and of processes and emissions covered (system boundaries) set out in Annex I to Delegated Regulation (EU) 2019/331 shall apply.

1. Product benchmarks without consideration of exchangeability of fuel and electricity

Product benchmark	Average value of the 10 % most efficient installations in 2016 and 2017 (t CO ₂ equivalents/t)	Benchmark value (allowances/t) for 2021-2025
Coke	0,144	0,217
Sintered ore	0,163	0,157
Hot metal	1,305	1,288
Pre-bake anode	0,317	0,312
Aluminium	1,472	1,443
Grey cement clinker	0,722	0,692
White cement clinker	0,973	0,957
Lime	0,785	0,725
Dolime	0,882	0,815
Sintered dolime	1,441	1,406
Float glass	0,421	0,399
Bottles and jars of colourless glass	0,323	0,290
Bottles and jars of coloured glass	0,265	0,237
Continuous filament glass fibre products	0,290	0,309
Facing bricks	0,094	0,106
Pavers	0,141	0,146
Roof tiles	0,130	0,121
Spray-dried powder	0,050	0,058
Plaster	0,043	0,040
Dried secondary gypsum	0,000	0,013
Short fibre kraft pulp	0,000	0,091
Long fibre kraft pulp	0,001	0,046

Product benchmark	Average value of the 10 % most efficient installations in 2016 and 2017 (t CO ₂ equivalents/t)	Benchmark value (allowances/t) for 2021-2025
Sulphite pulp, thermo-mechanical and mechanical pulp	0,000	0,015
Recovered paper pulp	0,000	0,030
Newsprint	0,007	0,226
Uncoated fine paper	0,011	0,242
Coated fine paper	0,045	0,242
Tissue	0,139	0,254
Testliner and fluting	0,059	0,188
Uncoated carton board	0,009	0,180
Coated carton board	0,011	0,207
Nitric acid	0,038	0,230
Adipic acid	0,32	2,12
Vinyl chloride monomer (VCM)	0,171	0,155
Phenol/acetone	0,194	0,202
S-PVC	0,073	0,066
E-PVC	0,103	0,181
Soda ash	0,642	0,641

2. Product benchmarks with consideration of exchangeability of fuel and electricity

Product benchmark	Average value of the 10 % most efficient installations in 2016 and 2017 (t CO ₂ equivalents/t)	Benchmark value (allowances/t) for 2021-2025
Refinery products	0,0250	0,0224
EAF carbon steel	0,209	0,215
EAF high alloy steel	0,266	0,268
Iron casting	0,295	0,275
Mineral wool	0,591	0,531
Plasterboard	0,098	0,100
Carbon black	1,125	1,485

Product benchmark	Average value of the 10 % most efficient installations in 2016 and 2017 (t CO ₂ equivalents/t)	Benchmark value (allowances/t) for 2021-2025
Ammonia	1,605	1,570
Steam cracking	0,693	0,681
Aromatics	0,0072	0,0224
Styrene	0,279	0,401
Hydrogen	4,02	6,73
Synthesis gas (syngas)	0,000	0,184
Ethylene oxide/ethylene glycols	0,314	0,389

3. Heat and fuel benchmarks

Benchmark	Average value of the 10 % most efficient installations in 2016 and 2017 (t CO ₂ equivalents/TJ)	Benchmark value (allowances/TJ) for 2021-2025
Heat benchmark	2,8	47,3
Fuel benchmark	38,2	42,6