



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 | HEUTIGER WERT |
|--|---|--|---------------|
| Coke | 0,144 | 0,217 | 0.286 |
| Sintered ore | 0,163 | 0,157 | 0.171 |
| Hot metal | 1,305 | 1,288 | 1.328 |
| Pre-bake anode | 0,317 | 0,312 | 0.324 |
| Aluminium | 1,472 | 1,443 | 1.514 |
| Grey cement clinker | 0,722 | 0,692 | 0.766 |
| White cement clinker | 0,973 | 0,957 | 0.987 |
| Lime | 0,785 | 0,725 | 0.954 |
| Dolime | 0,882 | 0,815 | 1.072 |
| Sintered dolime | 1,441 | 1,406 | 1.449 |
| Float glass | 0,421 | 0,399 | 0.453 |
| Bottles and jars of colourless glass | 0,323 | 0,290 | 0.382 |
| Bottles and jars of coloured glass | 0,265 | 0,237 | 0.306 |
| Continuous filament glass fibre products | 0,290 | 0,309 | 0.406 |
| Facing bricks | 0,094 | 0,106 | 0.139 |
| Pavers | 0,141 | 0,146 | 0.192 |
| Roof tiles | 0,130 | 0,121 | 0.144 |
| Spray-dried powder | 0,050 | 0,058 | 0.076 |
| Plaster | 0,043 | 0,040 | 0.048 |
| Dried secondary gypsum | 0,000 | 0,013 | 0.017 |
| Short fibre kraft pulp | 0,000 | 0,091 | 0.12 |
| Long fibre kraft pulp | 0,001 | 0,046 | 0.06 |

| 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 | 0.02 |
| Recovered paper pulp | 0,000 | 0,030 | 0.039 |
| Newsprint | 0,007 | 0,226 | 0.298 |
| Uncoated fine paper | 0,011 | 0,242 | 0.318 |
| Coated fine paper | 0,045 | 0,242 | 0.318 |
| Tissue | 0,139 | 0,254 | 0.334 |
| Testliner and fluting | 0,059 | 0,188 | 0.248 |
| Uncoated carton board | 0,009 | 0,180 | 0.237 |
| Coated carton board | 0,011 | 0,207 | 0.237 |
| Nitric acid | 0,038 | 0,230 | 0.302 |
| Adipic acid | 0,32 | 2,12 | 2.79 |
| Vinyl chloride monomer (VCM) | 0,171 | 0,155 | 0.204 |
| Phenol/acetone | 0,194 | 0,202 | 0.266 |
| S-PVC | 0,073 | 0,066 | 0.085 |
| E-PVC | 0,103 | 0,181 | 0.238 |
| Soda ash | 0,642 | 0,641 | 0.843 |

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 | 0.0295 |
| EAF carbon steel | 0,209 | 0,215 | 0.283 |
| EAF high alloy steel | 0,266 | 0,268 | 0.352 |
| Iron casting | 0,295 | 0,275 | 0.325 |
| Mineral wool | 0,591 | 0,531 | 0.682 |
| Plasterboard | 0,098 | 0,100 | 0.131 |
| Carbon black | 1,125 | 1,485 | 1.954 |

| 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 | 1.619 |
| Steam cracking | 0,693 | 0,681 | 0.702 |
| Aromatics | 0,0072 | 0,0224 | 0.0295 |
| Styrene | 0,279 | 0,401 | 0.527 |
| Hydrogen | 4,02 | 6,73 | 8.85 |
| Synthesis gas (syngas) | 0,000 | 0,184 | 0.242 |
| Ethylene oxide/ethylene glycols | 0,314 | 0,389 | 0.512 |

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 | 62.3 |
| Fuel benchmark | 38,2 | 42,6 | 56.1 |