

# Pure Green Cement

## Data and assumptions in film

Density of carbon dioxide gas<sup>1</sup> at 1 atm (101,325 Pa) and 15 °C: 1.8714 kg.m<sup>-3</sup>

Emissions from cement<sup>2</sup>: 2,214 MtCO<sub>2</sub>.yr<sup>-1</sup>

Cement carbon intensity<sup>3</sup>: 0.54 kgCO<sub>2</sub>.kgCement<sup>-1</sup>

|                                | Density or Bulk density (kg.m <sup>-3</sup> ) |
|--------------------------------|---|
| General purpose blended cement | 1,300   |
| Sand or coarse aggregate       | 1,600   |
| Water                          | 1,000   |
| Concrete                       | 2,300   |

## Cement recipe

|           | Proportion by mass |
|-----------|--------------------|
| Cement    | 22%                |
| Sand      | 44%                |
| Aggregate | 22%                |
| Water     | 12%                |

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<sup>1</sup> Air Liquide Gas Encyclopaedia <https://encyclopedia.airliquide.com/carbon-dioxide>

<sup>2</sup> IEA (2020), Cement, IEA, Paris <https://www.iea.org/reports/cement>

<sup>3</sup> Ibid