60.2.3.07 Specific Net CO2 Emissions [kg CO2/t cem mat]

Description

Specific Net CO_2 Emissions corresponds to the ratio of absolute net CO_2 emitted as result of clinker and cement production process (excluding cost center 'Power Generation') and shipping station at plant of own equipment, in relation to cementitious materials volume (WBCSD).

Reference to Process

This indicator refers to:

- All cost centers production (excluding cost center 'Power Generation')
- Cost center 'Shipping Station' at plant
- Product sub-segments ‘Clinker and Cement’
- Product sub-segment ‘Mineral components and other cementitious materials’
- Product segment cementitious materials

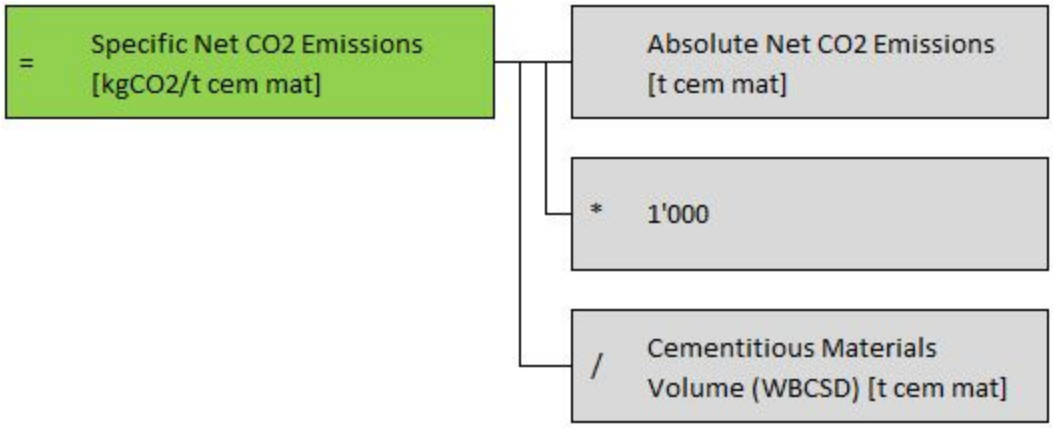
Absolute emissions refer exclusively to production activities.

Purpose

To calculate the net CO_2 emissions per unit of cementitious materials volume (WBCSD), taking into account the indirect CO_2 reductions from the use of waste as fuel.

Calculation

The calculation principles and guidelines are compliant with The Cement CO_2 and Energy Protocol elaborated by the Cement Sustainability Initiative of the World Business Council for Sustainable Development (WBCSD).



The component 'Absolute Net CO_2 Emissions' excludes the cost center 'Power Generation'.

Comments and examples

TIS data normalization code: ICS code 400+KEMINT+CO2

For details see '[Absolute Net CO_2 Emissions]' and '[Cementitious Materials Volume (WBCSD)]'.
Also note that clinker purchased and consumed in cement production (and cement purchased) are not included in the denominator because the clinker volume purchased is already included in the CO_2 inventories of the producer to avoid the double-counting of CO_2 emissions.

Provides the basis for monitoring emissions performance and enables comparison of performance between companies within the Group and across the industry. It is LafargeHolcim's key CO_2 indicator for public reporting.

Substituting fossil fuels by AFR is an effective way to reduce global CO_2 emissions. However, there is not yet international consensus on how to account for CO_2 emissions from use of waste as fuel. Therefore both gross and net CO_2 indicators are calculated and reported.

No CO_2 emissions are accounted for distribution activities, excepting cost center 'Shipping Station' at plant.

Example

Calculation example for Specific Net CO_2 Emissions [kg CO_2/t cem mat] (company level):

Spec Net CO2 Emiss_Ex-Specific

The Specific Net CO_2 Emission is:
92'000 x 1000 / (85'000 + 20'000 + 15'000) = 767 [kg CO2/ t cem mat]

The tool developed by HTS - Sustainable Development - Climate Change (SD - CC) and linked below is to help calculating the LHARP environmental (CO_2) indicators:

LHARP CO_2 Reporting Tool.xls

Note that the CO_2 Reporting Tool is suitable for a company with up to 14 plants.
Those companies with fewer plants can hide the plant-level worksheets that they do not need.

Below is a link to the tool used to forecast the CO_2 emissions for a company with up to 14 plants over the next 5 years.

LHARP CO_2 Forecast Tool.xls