

**Explanatory notes**

- 1) The data for 2006, 2012-2015 is not available as explained in the PDD reason being that the PDD was developed in 2006 using the 2003-2005 base
- 2) The cells with the value 0 and #Div/0 are cells which does not have any relevance in the calculation due to no available data for 2006 and 2012-2015

baseline figures and LMCB does not have the market forecast yet for the production of cement from 2012-2014

Detailed Questionnaire EcoSecurities - Cement project (ACM0005)  
Fill in one sheet for each type of cement produced in the plant  
Please fill in the yellow boxes  
\*For the estimation of the project data: fill in the last box "Future (project)" in column F (blue cells)  
1. If unknown, write "unknown"  
2. If expected to be the same as 2004 (or as the average 2002-3-4), write "same as 2004" (or "same as average")  
3. If x % increase/decrease compared to the current situation (or compared to the previous year), write "x % decrease/increase compared to now (or yearly)"  
4. If the estimations of one parameter are detailed for each future year of operation, please start a new line at the bottom of the page for each parameter  
5. In any other case, please describe the relevant situation in column G

LMCB - Pasir Gudang Works (PGW)  
Historical data (measured/calculated)  
Project estimations  
Data specific to each cement type

LMCB - Pasir Gudang Works (PGW)											
GENERAL PURPOSE CEMENT PRODUCTION											
OPC											
Quantity of OPC produced	tonnes/yr	565,332	638,985	660,134	89,100	93,879	97,221	100,219	103,125		
% clinker per ton of cement 1 produced	ton clinker/ton cement	92.76%	91.93%	91.50%	95.00%	95.00%	95.00%	95.00%	95.00%		
PPC											
Quantity of PPC produced	tonnes/yr	0	0	0	562,310	575,627	590,972	607,142	623,890		
% clinker per ton of PPC produced	ton clinker/ton cement	0.00%	0.00%	0.00%	56.77%	57.09%	57.19%	57.22%	57.24%		
Masonry											
Quantity of Masonary produced	tonnes/yr	0	40,706	40,706	58,000	59,864	61,660	63,510	65,415		
% clinker per ton of Masonary produced	ton clinker/ton cement	0.00%	69.15%	73.46%	69.00%	69.00%	69.00%	69.00%	69.00%		
Quantity of raw material used for clinker production*	tonnes/yr	630,628	967,777	1,030,819	708,095	732,343	754,270	775,964	797,907		
CaO content of raw material	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
MgO content of raw material	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
Output											
Quantity of clinker brought in from Langkawi	tonnes/yr	528,698	606,928	636,425	443,916	459,117	472,863	486,464	500,220		
CaO content of clinker	%	66.31%	66.46%	66.05%	64.67%	64.67%	64.67%	64.67%	64.67%		
MgO content of clinker	%	1.64%	1.53%	1.56%	1.3%	1.3%	1.3%	1.3%	1.3%		

FOSSIL FUEL USE FOR CLINKER PRODUCTION (KILN)											
Petrol coke	tons/yr	0	0	0							
Heavy oil	tons/yr	0	0	0							
Solvents	tons/yr	0	0	0							
Dieseloline	tons/yr	0	0	0							
Coal	tons/yr	0	0	0							
Palm Kernel Shell	tons/yr	0	0	0							

ELECTRICITY USE											
Clinker production in Langkawi		2,990,724	2,907,995	3,000,164							
Electricity Usage For Clinker in Langkawi		227,693	232,640	242,353							
Electricity per te of clinker		0.076	0.080	0.081							
Grid electricity for clinker production	MWh/year	40,287	46,554	51,410							
Self generated electricity for clinker production	MWh/year	0	0	0							
Grid electricity for grinding for OPC	MWh/year	23,744	26,198	26,837							
Self-generated electricity for grinding for OPC	MWh/year	0	0	0							
Grid electricity for grinding for cement 2 (OWC)	MWh/year	2,597	2,973	2,779							
Self-generated electricity for grinding for cement 2(OWC)	MWh/year	0	0	0							
Grid electricity for grinding for Masonary	MWh/year	0	1,184	1,831							
Self-generated electricity for grinding for Masonary	MWh/year	0	0	0							
Grid electricity for preparing additives for cement 2	MWh/year	0									
Self generated electricity for grinding additives for cement 2	MWh/year	0	0	0							

TRANSPORT OF ADDITIVES (if all additives are on-site: leave blank)											
Fuel consumption for the vehicle	kg fuel/km	0.213									
Distance between the source of additives and the plant	km/vehicle trip	600									
Emission factor of the vehicle fuel	kg CO2/kg fuel										
Amount of additives carried per trip	ton/vehicle trip	25									
Electricity consumption of the conveyor system for additives	MWh/yr	Not known									

PROJECT ESTIMATION FOR EACH FUTURE YEAR OF OPERATION (IF ANY SUCH DETAILED PROJECTION IS AVAILABLE)																												
Parameter	Unit	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Clinker Production	Tons/ yr	0	443,916	459,117	472,863	486,464	500,220																					
Cement Produced																												
OPC Production	Tons/ yr	0	89,100	93,879	97,221	100,219	103,125																					
PPC Production	Tons/ yr	0	562,310	575,627	590,972	607,142	623,890																					
Masonry Cement Production	Tons/ yr	0	58,000	59,864	61,660	63,510	65,415																					
Total Cement Produced	Tons/ yr	0	709,410	729,370	749,853	770,870	792,431																					

	2003	2004	2005	2006	2007	2008	2009	2010	2011
OPC	524,402	587,419	604,023	0	84,645	89,185	92,360	95,208	97,969
PPC	0	0	0	0	319,251	328,626	337,958	347,434	357,115
Masonry	0	28,164	29,303	0	40,000	41,306	42,545	43,822	45,136
TOTAL	524,402	615,583	633,325	0	443,916	459,117	472,863	486,464	500,220

	2003	2004	2005
Misc	225400	392591	208358
Singcrete	0	11724	2114
Walcrete	3267	245509	198345
PFA Addn	19%	19%	23%
Listone Addn	32%		
PBFS			
1.571082788	Raw material to clinker ratio		
	2003	2004	2005 Average
	1.5710828	1.594551229	1.619702123 1.595112047
1.594551229			
1.619702123	*Clinker raw material for Pasir Gudang is back calculated from the raw material to clinker ratio for Langkawi plant which is multiplied with the clinker in the cement produced in Pair Gudang		

92.2	86.65	94.66
46.1	46.1	46.1
46.61	46.61	46.61
46.61	46.61	46.61

0.32

COLOR CODE
measured
as 3y average
calculated
cement type specific
default
general project specific data

Parameter	Unit	Average	2003	2004	2005	1 2006	2 2007	3 2008	4 2009	5 2010	6 2011	7 2012	8 2013	9 2014
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Baseline CO2 emissions from calcination process - Summary														
BE - calcin	tCO2/tonne clinker ç	0.5389348	0.5384423	0.5385756	0.5397865	#DIV/0!	0.5389348	0.5389348	0.5389348	0.5389348	0.5389348	#DIV/0!	#DIV/0!	#DIV/0!

Main assumptions and input		
Stoichiometric EF CaO	tCO2/tCaO	0.785
Stoichiometric EF MgO	tCO2/tCaO	1.092

Details of calculations:														
Input of raw materials														
Quantity of raw material used for clinker production	tonnes/yr	943,075	830,628	967,777	1,030,819	0	707,627	731,859	753,771	775,451	797,380	0	0	0
CaO content of raw material	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
MgO content of raw material	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
InCaO	tonnes CaO	0	0	0	0	0	0	0	0	0	0	0	0	0
InMgO	tonnes MgO	0	0	0	0	0	0	0	0	0	0	0	0	0
Output of clinker														
Quantity of clinker produced	tonnes/yr	590,683	528,698	606,928	636,425	0	443,916	459,117	472,863	486,464	500,220	0	0	0
CaO content of clinker	%	66.28%	66.31%	66.48%	66.05%	66.28%	66.28%	66.28%	66.28%	66.28%	66.28%	66.28%	66.28%	66.28%
MgO content of clinker	%	1.71%	1.64%	1.53%	1.95%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%
OutCaO	tonnes CaO	391,475	350,579	403,486	420,359	0	294,227	304,303	313,414	322,428	331,546	0	0	0
OutMgO	tonnes MgO	10,122	8,671	9,286	12,410	0	7,576	7,836	8,070	8,302	8,537	0	0	0
Baseline CO2 emissions from calcination process														
BE - calcin	tCO2/tonne clinker ç	0.5389348	0.5384423	0.5385756	0.5397865	#DIV/0!	0.5389348	0.5389348	0.5389348	0.5389348	0.5389348	#DIV/0!	#DIV/0!	#DIV/0!

Parameter	Unit	Average	2003	2004	2005	1 2006	2 2007	3 2008	4 2009	5 2010	6 2011	7 2012	8 2013	9 2014
<b>CO2 emissions due to fossil fuel use (total per tonne of clinker) - Summary</b>														
BE - fossil_fuel	tCO2/tonne clinker	0.383	0.377	0.391	0.382	0.383	0.383	0.383	0.383	0.383	0.383	#DIV/0!	#DIV/0!	#DIV/0!
<b>Main assumptions and input</b>														
CLNK - BSL (production of t tons/yr		2,966,294	2,990,724	2,907,995	3,000,164	2,966,294	2,966,294	2,966,294	2,966,294	2,966,294	2,966,294	0	0	0
Emission factors of:														
Petrol coke	tCO2/t fuel	3.17												
Heavy oil	tCO2/t fuel	3.126												
Solvents	tCO2/t fuel	0												
Diesoline	tCO2/t fuel	3.185												
Coal	tCO2/t fuel	2.668												
Palm Kernel Shell	tCO2/t fuel	0												
0 tCO2/t fuel		0												
0 tCO2/t fuel		0												
<b>Details of caculations:</b>														
Type/quantity of fuel used in kiln (per year)														
Petrol coke	tons/yr	93,367	94,385	81,401	104,314	93,367	93,367	93,367	93,367	93,367	93,367	0	0	0
Heavy oil	tons/yr	0	0	0	0	0	0	0	0	0	0	0	0	0
Solvents	tons/yr	0	0	0	0	0	0	0	0	0	0	0	0	0
Diesoline	tons/yr	3,268	3,905	3,054	2,845	3,268	3,268	3,268	3,268	3,268	3,268	0	0	0
Coal	tons/yr	311,392	306,133	325,971	302,071	311,392	311,392	311,392	311,392	311,392	311,392	0	0	0
Palm Kernel Shell	tons/yr	0	0	0	0	0	0	0	0	0	0	0	0	0
0 tons/yr		0	0	0	0	0	0	0	0	0	0	0	0	0
0 tons/yr		0	0	0	0	0	0	0	0	0	0	0	0	0
CO2 emissions due to fossil fuel use (total per year for each fuel)														
Petrol coke	tCO2/yr	295,972	299,200	258,041	330,675	295,972	295,972	295,972	295,972	295,972	295,972	0	0	0
Heavy oil	tCO2/yr	0	0	0	0	0	0	0	0	0	0	0	0	0
Solvents	tCO2/yr	0	0	0	0	0	0	0	0	0	0	0	0	0
Diesoline	tCO2/yr	10,409	12,437	9,727	9,061	10,409	10,409	10,409	10,409	10,409	10,409	0	0	0
Coal	tCO2/yr	830,793	816,763	869,691	805,925	830,793	830,793	830,793	830,793	830,793	830,793	0	0	0
Palm Kernel Shell	tCO2/yr	0	0	0	0	0	0	0	0	0	0	0	0	0
0 tCO2/yr		0	0	0	0	0	0	0	0	0	0	0	0	0
0 tCO2/yr		0	0	0	0	0	0	0	0	0	0	0	0	0
CO2 emissions due to fossil fuel use (total per tonne of clinker)														
BE - fossil_fuel	tCO2/tonne clinker	0.383	0.377	0.391	0.382	0.383	0.383	0.383	0.383	0.383	0.383	#DIV/0!	#DIV/0!	#DIV/0!

Parameter	Unit	Average	2003	2004	2005	1 2006	2 2007	3 2008	4 2009	5 2010	6 2011	7 2012	8 2013	9 2014
<b>CO2 emissions from electricity use - Summary</b>														
BE/PE - ele_grid_CLNK	tCO2/tonne clinker	0.049	0.047	0.050	0.050	#DIV/0!	0.049	0.049	0.049	0.049	0.049	#DIV/0!	#DIV/0!	#DIV/0!
BE/PE - ele_sg_CLNK	tCO2/tonne clinker	0.000	0.000	0.000	0.000	#DIV/0!	0.000	0.000	0.000	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
Baseline/project emissions due to elec for clinker	tCO2/tonne clinker	0.049	0.047	0.050	0.050	#DIV/0!	0.049	0.049	0.049	0.049	0.049	#DIV/0!	#DIV/0!	#DIV/0!
BE/PE - ele_grid_BC [General Purpose Cement]	tCO2/tonne BC	0.028	0.029	0.028	0.028	#DIV/0!	0.028	0.028	0.028	0.028	0.028	#DIV/0!	#DIV/0!	#DIV/0!
BE/PE - ele_sg_BC [General Purpose Cement]	tCO2/tonne BC	0.000	0.000	0.000	0.000	#DIV/0!	0.000	0.000	0.000	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
Baseline/project emissions due to elec for grinding [General Purpose Cement]	tCO2/tonne BC	0.028	0.029	0.028	0.028	#DIV/0!	0.028	0.028	0.028	0.028	0.028	#DIV/0!	#DIV/0!	#DIV/0!
BE/PE - ele_grid_ADD [General Purpose Cement]	tCO2/tonne BC	0.000	0.000	0.000	0.000	#DIV/0!	0.000	0.000	0.000	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
BE/PE - ele_sg_ADD [General Purpose Cement]	tCO2/tonne BC	0.000	0.000	0.000	0.000	#DIV/0!	0.000	0.000	0.000	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
Baseline/project emissions due to elec for additives [General Purpose Cement]	tCO2/tonne BC	0.000	0.000	0.000	0.000	#DIV/0!	0.000	0.000	0.000	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
<b>Main assumptions and input</b>														
CLNK - BSL / CLNK - y	tonne clinker/yr	590,683	528,698	606,928	636,425	0	443,916	459,117	472,863	486,464	500,220	0	0	0
BC - BSL / BCy for General Purpose Cement	tonne BC/yr	648,621	565,332	679,691	700,840	0	709,410	729,370	749,853	770,870	792,431	0	0	0
Grid electricity EF	tCO2/MWh	0.622												
Self generated electricity EF	tCO2/MWh	0												
<b>Details of calculations:</b>														
<b>Grid electricity for clinker production</b>														
BE/PELE - grid_CLNK	MWh/year	46,750	40,287	48,554	51,410	0	35,066	36,267	37,353	38,427	39,514	0	0	0
BE/PE - ele_grid_CLNK	tCO2/tonne clinker	0.049	0.047	0.050	0.050	#DIV/0!	0.049	0.049	0.049	0.049	0.049	#DIV/0!	#DIV/0!	#DIV/0!
<b>Self generated electricity for clinker production</b>														
BE/PELE - sg_CLNK	MWh/year	0	0	0	0	0	0	0	0	0	0	0	0	0
BE/PE - ele_sg_CLNK	tCO2/tonne clinker	0.000	0.000	0.000	0.000	#DIV/0!	0.000	0.000	0.000	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
<b>Grid electricity for BC grinding</b>														
BE/PELE - grid_BC for General Purpose Cement	MWh/year	29,381	26,341	30,355	31,448	0	32,135	33,039	33,967	34,919	35,896	0	0	0
BE/PE - ele_grid_BC for General Purpose Cement	tCO2/tonne BC	0.028	0.029	0.028	0.028	#DIV/0!	0.028	0.028	0.028	0.028	0.028	#DIV/0!	#DIV/0!	#DIV/0!
<b>Self generated electricity for BC grinding</b>														
BE/PELE - sg_BC for General Purpose Cement	MWh/year	0	0	0	0	0	0	0	0	0	0	0	0	0
BE/PELE - sg_BC for cement 2	MWh/year	0	0	0	0	0	0	0	0	0	0	0	0	0
BE/PE - ele_sg_BC for General Purpose Cement	tCO2/tonne BC	0.000	0.000	0.000	0.000	#DIV/0!	0.000	0.000	0.000	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
<b>Grid electricity for preparing additives</b>														
BE/PELE - grid_ADD for General Purpose Cement	MWh/year	0	0	0	0	0	0	0	0	0	0	0	0	0
BE/PE - ele_grid_ADD for General Purpose Cement	tCO2/tonne BC	0.000	0.000	0.000	0.000	#DIV/0!	0.000	0.000	0.000	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
<b>Self generated electricity for preparing additives</b>														
BE/PELE - sg_ADD for General Purpose Cement	MWh/year	0	0	0	0	0	0	0	0	0	0	0	0	0
BE/PE - ele_sg_ADD for General Purpose Cement	tCO2/tonne BC	0.000	0.000	0.000	0.000	#DIV/0!	0.000	0.000	0.000	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!





Parameter	Unit	Average	2003	2004	2005	1 2006	2 2007	3 2008	4 2009	5 2010	6 2011	7 2012	8 2013	9 2014
<b>Leakage factor - summary (for yearly leakage: see Emission Reductions)</b>														
L - add_trans(GBFS)	tCO2/tonne additive		0.108	0.083	0.082	#DIV/0!	0.100	0.099	0.097	0.096	0.094			
L - add_trans(PFA)	tCO2/tonne additive		0.083	0.059	0.057	#DIV/0!	0.076	0.075	0.073	0.072	0.070	#DIV/0!	#DIV/0!	#DIV/0!
L - add_trans(Limestone)	tCO2/tonne additive						0.095	0.093	0.092	0.090	0.089			
<b>Main assumptions and input</b>														
TF - cons	kg fuel/km	0.213												
TF - cons via ship	tons/day	0.546												
(D - add_source)PFA	km/vehicle trip	600												
(D - add_source)Limestone	km/vehicle trip	1,300												
No of days sailing via ship for GBFS	days	14												
No of days sailing via ship for PFA	days	1												
Fuel used	type of fuel	Diesel												
EF - gasoline	tCO2/t fuel	3.074												
EF - diesel	tCO2/t fuel	3.185												
EF-bunker fuel	tCO2/t fuel	3.078												
Q - add	tonne additive/vehicle trip	25												
Q - add via ship for GBFS	tonne additive/shipment	1,000												
Q - add via ship for PFA	tonne additive/shipment	3,000												
ELE - conveyor_ADD	MWh/yr	4,412												
PFA shipped via road	tonne additive/year	57,317	40,930	64,108	66,915	#DIV/0!	46,233	47,279	48,525	49,848	51,222	0	0	0
PFA shipped via ship	tonne additive/year						107,877	110,318	113,224	116,312	119,519			
GBFS shipped via ship	tonne additive/year						96,304	97,091	99,209	101,734	104,461			
Limestone transported	tonne additive/year						15,080	15,565	16,032	16,513	17,008			
EF - grid	tCO2/MWh	0.622												
<b>Details of calculations:</b>														
<b>Vehicle emissions</b>														
TEF	kg CO2/kg fuel	3.185												
(TF - cons * D - add_source * TEF / Q - add)PFA	tCO2 / tonne additive	0.016												
(TF - cons * D - add_source * TEF / Q - add)Limestone	tCO2 / tonne additive	0.035												
(TF - cons * D - add_source via ship * TEF / Q - add via ship)GBFS	tCO2 / tonne additive	0.02434614												
(TF - cons * D - add_source via ship * TEF / Q - add via ship)PFA	tCO2 / tonne additive	0.00056025												
<b>Conveyor emissions</b>														
ELE - conveyor_ADD * EF - grid / ADI	tCO2 / tonne additive		0.067	0.043	0.041	#DIV/0!	0.059	0.058	0.057	0.055	0.054	#DIV/0!	#DIV/0!	#DIV/0!

Parameter	Symbol	Unit	Average	1 2006	2 2007	3 2008	4 2009	5 2010	6 2011	7 2012	8 2013	9 2014	9 2015
<b>Emission reductions - summary</b>													
Annual emission reductions [General Purpose Cement]	ER - y	CER/yr		#DIV/0!	23,201	139,161	140,742	142,764	144,953	142,852	140,750	138,649	136,547
<b>Annual emission reductions [Total]</b>	<b>ER - y</b>	<b>CER/yr</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>23,201</b>	<b>139,161</b>	<b>140,742</b>	<b>142,764</b>	<b>144,953</b>	<b>142,852</b>	<b>140,750</b>	<b>138,649</b>	<b>136,547</b>
<b>Main assumptions and input</b>													
Annual Increase in baseline blend		%	2.0%										
Baseline benchmark share of clinker [General Purpose Cement]	B - Blend	tonne clinker/tonne BC	86.35%										
Annual production of blended cement [General Purpose Cement]	BC - y	tonne BC/yr		0	709,410	729,370	749,853	770,870	792,431	792,431	792,431	792,431	792,431
<b>Results common to both cement types</b>													
BSL benchmark emissions due to clinker production		tCO2/tonne clinker	0.972										
Project emissions due to clinker production per tonne clinker	PE - clinker,y	tCO2/tonne clinker		#DIV/0!	0.971	0.971	0.971	0.971	0.971	0.971	0.971	0.971	0.971
Adjusted BSL emissions due to clinker production per tonne clinker	BE - clinker	tCO2/tonne clinker		#DIV/0!	0.971	0.971	0.971	0.971	0.971	0.971	0.971	0.971	0.971
<b>Results for General Purpose Cement</b>													
<b>Blends (baseline and project)</b>													
Project share of additives	1 - P - Blend,y	tonne additives/tonne BC		#DIV/0!	37.42%	37.05%	36.94%	36.89%	36.88%	36.88%	36.88%	36.88%	36.88%
Baseline updated share of additives	A - Blend	tonne additive/tonne BC		13.65%	13.92%	14.20%	14.47%	14.74%	15.02%	15.29%	15.56%	15.83%	16.11%
Additional share of additives in project	P - Blend,y - A - Bler	tonne additive/tonne BC		#DIV/0!	23.50%	22.86%	22.47%	22.15%	21.86%	21.59%	21.31%	21.04%	20.77%
Project share of clinker	P - Blend,y	tonne clinker/tonne BC		#DIV/0!	62.58%	62.95%	63.06%	63.11%	63.12%	63.12%	63.12%	63.12%	63.12%
Baseline updated share of clinker	B - Blend,y	tonne clinker/tonne BC		86.35%	86.08%	85.80%	85.53%	85.26%	84.99%	84.71%	84.44%	84.17%	83.89%
<b>Baseline CO2 emissions per tonne of blended cement BC</b>													
Total BSL emissions due to clinker production per tonne BC	(BE - clinker)*(B - Bl	tCO2/tonne BC		#DIV/0!	0.836	0.834	0.831	0.828	0.826	0.823	0.820	0.818	0.815
BSL emissions due to elec for grinding		tCO2/tonne BC	0.028										
BSL emissions due to elec for additives		tCO2/tonne BC	0.000										
Total BSL emissions due to grinding and additives	BE - ele_ADD_BC	tCO2/tonne BC	0.028										
<b>Total BSL CO2 emissions per tonne BC</b>	<b>BE - BC,y</b>	<b>tCO2/tonne BC</b>		<b>#DIV/0!</b>	<b>0.864</b>	<b>0.862</b>	<b>0.859</b>	<b>0.856</b>	<b>0.854</b>	<b>0.851</b>	<b>0.848</b>	<b>0.846</b>	<b>0.843</b>
			4575887.083		613217	628536	644199	660211	676575	674473	672371	670270	668168
<b>Project CO2 emissions per tonne of blended cement BC</b>													
Total Project emissions due to clinker production per tonne BC	(PE - clinker)*(1 - P -	tCO2/tonne BC		#DIV/0!	0.608	0.611	0.613	0.613	0.613	0.613	0.613	0.613	0.613
Project emissions due to elec for grinding		tCO2/tonne BC		#DIV/0!	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028
Project emissions due to elec for additives		tCO2/tonne BC		#DIV/0!	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total Project emissions due to grinding and additives	PE - ele_ADD_BC,y	tCO2/tonne BC		#DIV/0!	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028
<b>Total Project CO2 emissions per tonne BC</b>	<b>PE - BC,y</b>	<b>tCO2/tonne BC</b>		<b>#DIV/0!</b>	<b>0.636</b>	<b>0.640</b>	<b>0.641</b>	<b>0.641</b>	<b>0.641</b>	<b>0.641</b>	<b>0.641</b>	<b>0.641</b>	<b>0.641</b>
			3417318.48		451223	466552	480483	494287	508258	508258	508258	508258	508258
<b>Emission reductions</b>													
Emission reductions from change in blend		tCO2/yr		#DIV/0!	161,961	161,949	163,680	165,887	168,279	166,177	164,075	161,974	159,872
Emission reductions from change in elec use for grinding		tCO2/yr		#DIV/0!	0	0	0	0	0	0	0	0	0
Emission reductions from change in elec use for additives		tCO2/yr		#DIV/0!	0	0	0	0	0	0	0	0	0
Total emission reductions before leakage and α adjustment)	[(BE - BC,y)-(PE - B	tCO2/yr		#DIV/0!	161,995	161,984	163,716	165,924	168,317	166,215	164,113	162,012	159,910
Leakage	L - y	tCO2/yr		#DIV/0!	-22,788	-22,823	-22,974	-23,160	-23,363	-23,363	-23,363	-23,363	-23,363
Proportion of additional additives that are not in surplus	α - y	%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Net emission reductions (after leakage and α adjustment)</b>	<b>ER - y</b>	<b>CER/yr</b>		<b>#DIV/0!</b>	<b>23,201</b>	<b>139,161</b>	<b>140,742</b>	<b>142,764</b>	<b>144,953</b>	<b>142,852</b>	<b>140,750</b>	<b>138,649</b>	<b>136,547</b>
Leakage tCO2/te additive					-0.493	-0.483	-0.473	-0.465	-0.456	-0.456	-0.456	-0.456	-0.456