

Disclosure on Cement Sustainability Initiative (CSI)

Aspects	KPIs	3 Locations		9 Locations
		FY 2013-14	FY 2014-15	FY 2014-15
CO₂ and Climate Protection	Total CO ₂ emissions - gross (million tonnes)	4.46	3.94	6.91
	Total CO ₂ emissions - net (million tonnes)	3.73	3.27	5.71
	Specific CO ₂ emissions - gross (kg/ton cementitious material)	675	658	540
	Specific CO ₂ emissions - net (kg/ton cementitious material)	670	637	530
Fuels and Raw Materials	Specific Heat Consumption (SHC) of clinker production (MJ/ton of Clinker)	3135	3117	3239
	Specific Heat Consumption (SHC) of clinker production (Kcal/Kg clinker)	749	745	774
	Alternative Fuel Rate (%)	2.3	10.1	6.2
	Biomass Fuel Rate (%)	0.3	2	1.3
	Total Alternative Fuel Rate (%)	2.6	12.1	7.5
	Alternative Raw Materials Rate (%)	14.50	13.44	28.48
	Clinker / Cement Ratio (%)	81.20	79.40	64.10
Health & Safety	Number of fatalities (directly employed)	0	0	0
	Number of fatalities per 10,000 directly employed	0	0	0
	Number of fatalities (indirectly employed)	1	0	1
	Number of Lost Time Injuries (directly employed)	5	4	10
	Lost Time Injuries per 1 million manhours (directly employed)	0.50	0.41	0.48

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Emission Reductions	Coverage rate continuous measurement: percentage (%) of clinker produced with continuous monitoring of main pollutants, dust, NOx and SOx	77	100	61
	Absolute emissions for dust pollutants (in tonnes/annum)	465	369	567
	Specific emissions for dust pollutants (in grams/tonne of clinker)	102.5	90.3	84.6
	Absolute emissions for NOx (in tonnes/annum)	4656	3711	*
	Specific emissions for NOx (in kg/tonne of clinker)	1.03	0.91	*
	Absolute emissions for SOx (in tonnes/annum)	208	198	*
	Specific emissions for SOx (in kg/tonne of clinker)	0.05	0.05	*
Local Impacts & Biodiversity	Percentage (%) of sites with quarry rehabilitation plans in place	100%	100%	100%
	Percentage (%) of sites with community engagement plans in place	100%	100%	100%
	Number of quarries within, containing or adjacent to areas designated for their high biodiversity value.	As per Government of India regulations, our quarries do not fall in or adjacent to areas with high biodiversity value.		
	Percentage (%) of quarries with high biodiversity value where biodiversity management plans are actively implemented	Not Applicable		

* Only three locations have reported air emissions for 2014-15. We are implementing reporting systems in the remaining locations.