



**HOPE**  
Construction Materials

**Cementitious Products  
Sustainability & Responsible Sourcing Data Collation Report - 2015**



## Introduction

Hope Construction Materials is a forward-thinking cement and ready-mixed concrete company servicing key markets across the UK. The business also supplies primary aggregates and asphalt from a number of strategically located units.

Hope Construction Materials is committed to manufacturing its products in the most sustainable manner possible, whilst working with our supply chain partners to actively develop responsible sourcing, quality, environment and health & safety management systems. We are therefore fully focused on continually improving our efficiency and our effectiveness in each of these areas. Hope Construction Materials has and will continue to set meaningful and measurable objectives and targets to achieve this. We recognise that sustained success means working in an efficient and responsible manner every day as well as constantly seeking new ways to ensure long-term sustainability.

Hence we are guided by a philosophy to produce safe, sustainable construction materials that meet the country's demand for development in housing, commercial property and infrastructure, in a way which continually seeks to reduce or offset any impact on our environment or the communities in which we operate. This approach is reflected in many ways, but starts with our stated core purpose: We are proud to partner with our customers, contractors, communities and other stakeholders in order to create best-in-class construction solutions that shape the fabric of society for today and tomorrow.

This report satisfies the mandatory reporting requirements stipulated by ISO 14064-1 'Specification with guidance at the organisation level for the quantification and reporting of greenhouse gas emissions and removals'.

The following data has been collated against the Sustainable Construction Forum (SCF) Key Performance Indicators (KPI's) and targets, and is compliant with the requirements of the Building Research Establishment (BRE) Environmental and Sustainability Standard BES 6001, Issue 3.

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Sustainability Principles	Concrete Industry Performance Indicators	Unit of expression	BES 6001 Link	MPA/Gov. Targets	Hope Data 2014	Hope Data 2015	Target Set	Quantitative	Qualitative	Hope Targets
Environmental Management Systems	1.1 % of production sites covered by a 'UKAS' certified EMS (such as ISO14001, EMAS and for SMEs, BS5555)	% of production sites (and absolute number compared to total)	Management systems (sections 3.3.2 & 3.4.3 of BES 6001)	25% of products used in construction projects to be from schemes recognised for responsible sourcing	100%	100%	Y	Y	N/A	Maintain % of production sites covered by a 'UKAS' certified EMS at 100%
Waste minimisation	1.2a kg of waste to landfill as a proportion of production output (supplemented by 3.1a-d)	kg per tonne	Waste Management (section 3.4.4 of BES 6001)	individual organisations commit to waste to landfill targets at company level	0.604 kg/tonne	0.0051 kg/tonne	Y	Y	N/A	Continue to monitor and manage waste to landfill, linked to the use of energy recovery landfill sites
Waste minimisation	1.2b Net waste ratio. Ratio of 'total waste product usage' to 'waste to landfill'	Ratio	Waste Management (section 3.4.4 of BES 6001)	Sector resource efficiency plans prepared and implemented by trade associations.	18123:1	24103:1	Y	Y	N/A	Levels managed and linked to the above
Emissions (excluding CO <sub>2</sub> )	1.3 Number of convictions for air and water emissions per annum	Number per annum	Local communities (section 3.4.10 of BES 6001)		0	0	Y	Y	N/A	Maintain zero convictions for air and water emissions
Stakeholder Engagement	1.4 Stakeholder engagement. No indicator – performance to be covered qualitatively	n/a	Social Requirements (section 3.4 of BES 6001)		-	-	N/A	N/A	N/A	No Target
Quality & Performance	1.5 % of production sites covered by a 'UKAS' certified 9001 quality management system	% of production sites (and absolute number compared to total)	Management systems (section 3.2.3 of BES 6001)	Multiple actions for "innovation" linked to the overarching target to "enhance the industry's capacity to innovate and increase the sustainability of both the construction process and it's resultant assets"	100%	100%	Y	Y	N/A	Maintain % of production sites certified to 'UKAS' BS EN ISO 9001 at 100%
Responsible Sourcing	1.6 % of reported production certified to BES 6001	% of reported production tonnes certified to BES 6001	Management systems (section 3.2.4 of BES 6001)		100%	100%	Y	Y	N/A	Maintain % production sites certified to BES 6001 At 100%

Sustainability Principles	Concrete Industry Performance Indicators	Unit of expression	BES 6001 Link	MPA/Gov. Targets	Hope Data 2014	Hope Data 2015	Target Set	Quantitative	Qualitative	Hope Targets
Energy	2.1 Energy used in production as a proportion of production output	kWh per tonne	Energy & Greenhouse gas Emissions (sections 3.4.1 & 3.4.2 of BES 6001)	<p>UK cement industry target of 80% reduction in CO<sub>2</sub> emissions by 2050 from 1990 levels.</p> <p>15% reduction in carbon emissions from construction processes and associated transport compared to 2008 levels.</p>	881.47 kWh/tonne	967.83 kWh/tonne	Y	Y	N/A	Maintain performance of <124kWh/tonne of cement electricity & maintain performance of <3.6GJ/tonne of clinker (other fuels).
	2.1a Energy intensity of production output	tonnes : kWh ratio	Energy & Greenhouse gas Emissions (sections 3.4.1 & 3.4.2 of BES 6001)		0.0011:1	0.0007:1	Y	Y	N/A	Maintain as practicable the 2014 'energy intensity' ratio, linked to the above year on year.
	2.1b Energy intensity of production output				Energy Intensity is also monitored by the business in relation to profitability but is not publically available					
CO <sub>2</sub> Emissions (Production)	2.2 CO <sub>2</sub> emissions as a proportion of production output	kgCO <sub>2</sub> per tonne	Energy & Greenhouse gas Emissions (sections 3.4.1 & 3.4.2 of BES 6001)	<p>Wider UK Government target is 80% reduction by 2050 based on 1990 levels.</p> <p>Recent carbon budget has a target of 34% reduction by 2020 based on 1990 levels</p>	686.37 kgCO <sub>2</sub> /tonne	725.67 kgCO <sub>2</sub> /tonne	Y	Y	N/A	Reduce kgCO <sub>2</sub> /tonne emissions from production by 2% from 2013 levels to 2020 and minimise direct and indirect emissions of CO <sub>2</sub> by investigating new technologies and the replacement of fossil fuels with waste derived alternatives
	2.2a GHG intensity of production output	Tonnes : kgCO <sub>2</sub> Ratio	Energy & Greenhouse gas Emissions (sections 3.4.1 & 3.4.2 of BES 6001)	1456.9:1	1983.2:1	Y	Y	N/A	Reduce 'intensity ratio' by 2% from 2013 levels, linked to the above by 2020	
	2.2b GHG intensity of production output			Energy Intensity is also monitored by the business in relation to profitability but is not publically available						

Sustainability Principles	Concrete Industry Performance Indicators	Unit of expression	BES 6001 Link	MPA/Gov. Targets	Hope Data 2014	Hope Data 2015	Target Set	Quantitative	Qualitative	Hope Targets
CO <sub>2</sub> Emissions (Transport)	<b>2.3a</b> Average delivery distance travelled per tonne (from factory gate to customer)	km per tonne	Transport Impacts (section 3.4.8 of BES6001)	<p><i>No MPA Target</i></p> <p><i>The wider UK Government target is 80% reduction by 2050 based on 1990 levels. Recent carbon budget has target of 34% by 2020 based on 1990 levels</i></p>	Road - 73 km (return journey) Rail – 489km (single journey)	Road(return) - 72 km (0.402 average km/tonne) Rail(single) – 479km (2.78 average km/tonne)	Linked to 2.3d	N/A	N/A	Linked to 2.3d
	<b>2.3b</b> Tonnes moved split by three modes: road, rail, inland barge	Tonnes moved by each mode	Transport Impacts (section 3.4.8 of BES6001)		Road - 1281387 tonnes Rail – 1092387 tonnes	Road - 1341119 tonnes Rail – 1052438 tonnes	Linked to 2.3d	N/A	N/A	Linked to 2.3d, with additional target to maintain 2013 % split between road & rail travel year on year
	<b>2.3c</b> Average load for each mode	Tonnes per load	Transport Impacts (section 3.4.8 of BES6001)		Road – 29 tonnes Rail – 1305 tonnes	Road – 29 tonnes Rail – 1329 tonnes	Linked to 2.3d	N/A	N/A	Linked to 2.3d, with improved load size efficiency where possible ongoing
	<b>2.3d</b> CO <sub>2</sub> emissions as a proportion of production output	kgCO <sub>2</sub> per tonne	Transport Impacts (section 3.4.8 of BES6001)		Road – 2.36 kgCO <sub>2</sub> /tonne Rail – 13.79 kgCO <sub>2</sub> /tonne	Road - 2.33 kgCO <sub>2</sub> /tonne Rail – 12.39 kgCO <sub>2</sub> /tonne	Y	Y	N/A	10% reduction in MPG from 2014 figures by 2020 (equiv. of 1.21 kgCO <sub>2</sub> per tonne, estimated as 10.03% reduction)
Materials Efficiency	<b>3.1a</b> Material diverted from the waste-stream for use as a fuel source as a % of total energy use	%	Resource Use & Waste Management (sections 3.4.3 & 3.4.4 of BES 6001)	Sector resource efficiency plans prepared and implemented by trade associations	33.5% (Thermal substitution)	28.9% (Thermal substitution)	Y	Y	N/A	>38% thermal substitution and ongoing evaluation against plant capability
	<b>3.1a-x</b> % substitution rate of natural raw materials by alternative raw materials	%			5.94%	6.75%	Y	Y	N/A	Maintain at or below the 2013 figure year on year
	<b>3.1a-y</b> % of additions used per tonne of cement produced	%			12.67%	11.91%	Y	Y	N/A	>12% and monitored against product split with packed product launch 2016. Continue to evaluate with business needs

Sustainability Principles	Concrete Industry Performance Indicators	Unit of expression	BES 6001 Link	MPA/Gov. Targets	Hope Data 2014	Hope Data 2015	Target Set	Quantitative	Qualitative	Hope Targets
Water	<b>3.2a</b> Mains water use as a proportion of production output	Litres per tonne	Water Extraction (section 3.4.5 of BES 6001)	<i>Reduction of mains water usage within the construction industry by 20% from 2008 levels</i>	0	0	Y	Y	N/A	Maintain 'zero' mains water usage in production
	<b>3.2b</b> Controlled groundwater use as a proportion of production output	Litres per tonne	Water Extraction (section 3.4.5 of BES 6001)		414.62 Litres/tonne	174 Litres/tonne	Y	Y	N/A	Maintain 100% non-mains water usage within production year on year whilst maintaining optimum water usage and utilising the recirculating system wherever possible
	<b>3.2c</b> Mains water intensity of production output	Production tonnes : Litres ratio	Water Extraction (section 3.4.5 of BES 6001)		N/A - 'Zero usage'	N/A - 'Zero usage'	Y	Y	N/A	Maintain 'zero' usage
	<b>3.2d</b> Controlled groundwater Intensity of production output	Production tonnes : Litres ratio	Water Extraction (section 3.4.5 of BES 6001)		0.0024:1	0.0012:1	Y	Y	N/A	Maintain 2014 ratio in-line with KPI 3.2b year on year
Site Stewardship	<b>3.3</b> % of relevant production sites that have site specific action plans	% of relevant production sites (and absolute number compared to total)	Additional to BES 6001		100% (1)	100% (1)	N	N/A	N/A	Maintain at 100%

Sustainability Principles	Concrete Industry Performance Indicators	Unit of expression	BES 6001 Link	MPA/Gov. Targets	Hope Data 2014	Hope Data 2015	Target Set	Quantitative	Qualitative	Hope Targets
Health & Safety	<b>4.1b</b> Lost time injuries for 'direct employees' per 1 million hours worked	Number of LTI's per 1 million hours worked for direct employees & contractors and absolute number per annum	<b>Management systems (section 3.3.3 of BES 6001)</b>	<i>10% reduction year on year in the incidence rate of fatal and Major injuries</i>	<b>1.22/1 million hours (4 actual)</b>	<b>1.132/1 million hours (3 actual)</b>	Y	Y	N/A	<b>Overarching zero harm expectation, and no increase in actual number year on year</b>
Employment & Skills	<b>4.1c</b> % of production sites 'UKAS' certified to BS OHSAS 18001  & <b>4.2a</b> % of employees covered by UKAS certified ISO 9001, ISO 14001, OHSAS 18001 systems (Training & competence sections)	% of production sites 'UKAS' certified to BS OHSAS 18001'  & % of employees covered by UKAS ISO 9001/14001 or OHSAS 18001 systems	<b>Employment &amp; Skills (section 3.4.9 of BES 6001)</b>	<i>Development of sector specific Skills Pledge and Action Plan for driving a training culture in the building products sector (Proskills)</i>  <i>Promotion of the value of CPD, and facilitating access to suitable developmental training on sustainability aspects</i>	<b>100% of production sites</b>  <b>100% of employees</b>	<b>100% of production sites</b>  <b>100% of employees</b>	Y	Y	N/A	<b>Maintain % of production sites 'UKAS' certified to OHSAS 18001 at 100%  &amp; Maintain % relevant employees covered by UKAS certified ISO 9001, ISO 14001 &amp; OHSAS 18001 at 100%</b>
	<b>4.2b</b> % of employees covered by environmental and H&S management systems following the principles of BS EN 14001 or OHSAS 18001	% of employees covered by BS EN ISO 14001 or OHSAS 18001 systems	<b>Employment &amp; Skills (section 3.4.9 of BES 6001)</b>	<i>As above, but additionally to operate a fully competent workforce, operating under a formally certified management system</i>	<b>100%</b>	<b>100%</b>	Y	Y	N/A	<b>Maintain % of Relevant employees covered by BS EN ISO 14001 &amp; OHSAS 18001 management systems at 100%</b>

Sustainability Principles	Concrete Industry Performance Indicators	Unit of expression	BES 6001 Link	MPA/Gov. Targets	Hope Data 2013	Hope Data 2014	Target Set	Quantitative	Qualitative	Hope Targets
Local Community & Resource use	4.3 % of relevant production sites with community liaison activities (supplemented by 1.3)	% of relevant production sites (and absolute number compared to total)	Local Communities (section 3.4.10 of BES 6001)		100%	100%	Y	Y	N/A	Maintain % of relevant production sites that have community liaison activities at 100%
	4.3a Number of community complaints (supplemented by 1.3)	Complaints per production tonne	Local Communities (section 3.4.10 of BES 6001)		(13 Actual) 0.0000087	(8 Actual) 0.0000056	Y	Y	N/A	Overarching zero expectation with year on year reduction of 5% from 2013
	4.3b Number of community events held or sponsored	Number of events	Local Communities (section 3.4.10 of BES 6001)		25	40	N/A	Y	Y	Increase by 5% from 2013 baseline level year on year
	4.3c % use of 'road based' constituent materials sources within 50km of production facilities (100km return journey) (i.e. support for local business)	%	Local Communities (section 3.4.10 of BES 6001)		91.69%	89.66%	N/A	Y	Y	Maintain at 2013 baseline year on year
	4.3d Number of 'Group' recycling facilities in use to improve resource use at end-of life, and post-consumer retrieval	Number and % of aggregate facilities with recycling activities	Resource Use & Waste Management (sections 3.4.3 & 3.4.4 of BES 6001)		3/8 (37.5%)	3/8 (37.5%)	Y	Y	N/A	Maintain at 37.5%, and work with Stakeholders/supply chain to increase recycling

**Notes:**

The Hope Construction Materials 'Group figures' for 'events' are shown above. This is because certain operations such as 'Ready-mixed concrete production' is less appealing in terms of community visits, than quarry and/or cement works visits and it would be unfair to suggest that a lack of visits to these facilities represents a lesser level of community liaison. It should also be noted that community liaison activities are relevant and appropriate to our immediate neighbours and the areas in which we operate.

4.3c data represents the % usage of any given source within the final product. This is to ensure that the 4.3c % figure shown is representative of £turnover & tonnage used rather than just geographic position. i.e. A single very local constituent with a low value, purchased one per year should not adversely affect (falsely improve) the published figures, as in reality such a purchase could represent 0.001% of the constituents purchased, with large value/volume items being purchased from further afield.



**Additional constituent material transportation analysis:**

Sustainability Principles	Constituent material transportation analysis	Unit of expression	BES 6001 Link	MPA/Gov. Targets	Hope Data 2014	Hope Data 2015	Hope Targets
CO <sub>2</sub> Emissions (Transport)	Delivery distance travelled per tonne of traceable constituent material relative to proportionate usage (from source to Hope)	km travelled per constituent tonne supplied	Transport Impacts (section 3.4.8 of BES6001)	The wider UK Government target is 80% reduction by 2050 based on 1990 levels. Recent carbon budget has target of 34% by 2020 based on 1990 levels	0.53 km/tonne	0.33 km/tonne	Maintain 2015 performance or enhance (where possible) year on year
	Method of transportation split by modes	% moved by each mode	Transport Impacts (section 3.4.8 of BES6001)		9.01% Road 2.00% Sea 88.99% Conveyor/In-house	10% Road 0.3% Sea 89.7% Conveyor/In-house	Maintain 2015 performance or enhance (where possible) year on year
	Average load for each mode	Tonnes per load by mode	Transport Impacts (section 3.4.8 of BES6001)		Road – 27 tonnes Sea – 4000 tonnes (part of larger Cargo)	Road – 27 tonnes Sea – 4000 tonnes (Part of a larger cargo)	Maintain 2015 performance or enhance (where possible) year on year

**Transport related aspects and impacts of our business and terminology used:**

Transport related environmental aspects and impacts have been assessed via the organisations UKAS accredited BS EN ISO 14001 certified management system, with the main contributory factors being CO<sub>2</sub> emissions, use of natural resources (i.e. fuel sources), transport distances and neighbourhood noise/disruption/congestion. The above is true of both ‘customer transport’ (KPI’s 2.3a to 2.3d) and those given above. KPI 2.3d relates to the transportation of ‘Cementitious Products’ from the production facility to site, and the associated return journey, linked to KPI’s 2.3a-c. For ‘Hope road transport’ from gate to client, the Defra conversion factor 0.89883kg CO<sub>2</sub>/km has been used (Table 7d 2011 as an overall average figure combining various truck modes & sizes).

As part of our policy to reduce our environment aspects and impacts associated with transport, these have been assessed via the organisations UKAS accredited BS EN ISO 14001 certified management system, examining and detailing issues pertaining to our impacts upon air, water, land, natural resources, flora, fauna and human interaction in terms of past, present and planned events under our direct control, those influenced by supplier and those influenced by customer demand.

In accordance with our transport policy, in addition to customer transport, we also monitor the constituent transport mileage on an annual basis and actively seek to source constituents from local suppliers to reduce the environmental impact of our operations. However, as we do not directly control the operations of our suppliers, we are unable to monitor their direct CO<sub>2</sub> emissions, but can monitor our own impact on this in terms of transport distances and by efficient ordering of products in ‘full loads’ wherever possible.

The Methodology for calculation of all transport related KPI’s is taken directly from ISO 14064-1, with supporting information from the Concrete Industry SCF guidance documents in combination with Defra conversion factors.

## GHG ISO 14064-1 mandatory reporting requirements:

### Detail of 'Boundaries'

Production of 'Cementitious products'.

### Direct and indirect emissions by GHG source

Electricity	57.8 kgCO <sub>2</sub> per tonne
Gas/diesel oil – e.g. for heating (i.e. known as Red Diesel or Gas Oil)	0.3 kgCO <sub>2</sub> per tonne
Diesel for mobile plant	0.08 kgCO <sub>2</sub> per tonne
Bottled gas	0.01 kgCO <sub>2</sub> per tonne
Coal	180 kgCO <sub>2</sub> per tonne
Petcoke	0.88 kgCO <sub>2</sub> per tonne
Biofuel***	0 kgCO <sub>2</sub> per tonne
Other Waste Derived Fuels (Tyres, SWF)	33.83 kgCO <sub>2</sub> per tonne

### A description of how the CO<sub>2</sub> per tonne from biomass fuel is treated within the GHG inventory\*\*\*

Biomass fuel GHG is recorded and published as an independent figure above, whilst also being included within the overall published kgCO<sub>2</sub> per tonne figure.

### GHG removals

Not Applicable.

### Exclusion of GHG sources and justification statement

No exclusions made within the boundaries established.

### Historical base year data

The base line year is given as 2013, unless otherwise stated.

### Explanation of changes from the base year, or recalculation of data

Steady progress towards established targets has been made.

### Reference to quantification methodology and factors and any changes made (this statement includes the methodology for production, client transport and constituent transport)

Methodology taken directly from ISO 14064-1, with supporting information from the Concrete Industry SCF guidance documents in combination with Defra conversion factors. Please also see overall summary notes (below).

### Uncertainty statement

The organisation has undertaken an uncertainty exercise (outcomes detailed herein) in accordance with EPA regulations. However, the data collation is verified before use, and the factors used to determine GHG are supplied by Defra, with the uncertainty values being extremely low. The level of uncertainty of the resulting estimates depends significantly on the source category and the pollutant. However, as our sources of CO<sub>2</sub> emissions arise from the combustion of fuel, this uncertainty is vastly reduced, as emissions can be estimated with a high degree of certainty regardless of how the fuel is used as these emissions depend almost exclusively on the carbon content of the fuel, which is generally known with a high degree of precision. The majority of fuel used within our business is gas/electric, with other fuel sources as defined within the relevant SCF PI Guidance Document appendices. Hence, the organisation has determined that no further safety/variance values or factors are required in terms of onward reporting.

### Verification statement, and type of verification and level of assurance achieved

External EU ETS verification, coupled with internal verification and validation systems.

## Overall summary notes:

Hope Construction Materials has adopted the objectives and targets detailed above. Where organisation data indicates that the industry (trade association) target has been met, whilst it is desirable to surpass the aforementioned target, the requirements in terms of BES 6001 have been achieved. Revised 'organisational' targets will be discussed within the management review meetings to determine the scope for further improvement.

The term 'UKAS' refers to a certificate issued by a UKAS accredited certification body.

KPI 4.1b is a Group wide figure for Hope Construction Materials Ltd and includes both direct employee and contractor incidents. We have set a target based on lost time and medical treatment injuries (for employees and contractors combined).