



Knauf UK & Ireland

Environmental & Sustainability Data Collation Report 2019 (Incorporating GHG Reporting to ISO 14064-1)



Introduction

Knauf is committed to producing the most sustainable products available within each specific sector of its business and operates to BS EN ISO 9001, BS EN ISO 14001, BS OHSAS 18001/BS ISO 45001 and BRE BES 6001 standards covering quality, environmental, health & safety and Environmental & Sustainability respectively.

This report also includes 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 organisation also works closely with its supply chain partners to actively develop and introduce suitable management systems, certified standards and directives to enhance the built environment. Knauf is committed to continually improve its effectiveness in these areas and will continue to liaise with stakeholders and set itself meaningful and measurable objectives and targets to achieve this in line with BRE BES 6001 and BS 8902.

The natural environment is the foundation of our business, and Knauf are committed to protecting it for future generations. We see our responsibility as a balance between supplying products to meet society's needs while respecting and conserving the land.

We will continue to demonstrate our commitment to this through an ethos of supply chain management and product stewardship, together with a commitment to engage with stakeholders that may be affected by the impacts of our products.

The following data has been collated against specific 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 '*Framework Standard for the Responsible Sourcing of Construction Products*'.

Jan Dean

Managing Director*
Knauf (UK) GmbH

*And 'Responsible Person' as identified under GHG standard ISO 14064-1

Sustainability Principles	Construction Industry Performance Indicators & Knauf Specific KPI's	Unit of expression	Required link to BES 6001	Gov't 2020 Targets (from 2012 Baseline)	Knauf Base-Line Data 2019*	Target Set	Quantitative	Qualitative	Knauf Targets to 2022
Environmental Management Systems	1.1 % of production sites covered by a 'UKAS' certified EMS (such as ISO14001, EMAS and for SMEs, BS8555)	% 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%	Y	Y	N/A	Maintain % of production sites certified to BS EN ISO 14001 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	13.35kg/tonne	Y	Y	N/A	Reduce kg/tonne of waste by 3% from 2019 levels by 2022
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.	78.33 : 1	Y	Y	N/A	-
Emissions (excluding CO ₂)	1.3 Number of convictions for air and water emissions per annum	Number per annum	Local communities (section 3.4.10 of BES 6001)	Reducing the convictions for air and water emissions to zero	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%	Y	Y	N/A	Maintain % of production sites certified to 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%	Y	Y	N/A	Maintain % of production sites certified to BES 6001 at 'Excellent' level at 100%

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Energy & CO2 Emissions (Production)	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>15% reduction in carbon emissions from construction processes and associated transport compared to 2008 levels.</p> <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> <p>Note: 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</p>	1,275.04kWh/tonne	Y	Y	N/A	Reduce kWh/tonne emissions from production by 3% from 2019 levels by 2022
	2.1a Energy intensity of production output	tonnes : kWh ratio	Energy & Greenhouse gas Emissions (sections 3.4.1 & 3.4.2 of BES 6001)		1 : 1275.04	Y	Y	N/A	Reduce energy intensity ratio from production by 3% from 2019 levels by 2022
	2.1b Energy intensity of production output	£turnover : kWh ratio	Energy & Greenhouse gas Emissions (sections 3.4.1 & 3.4.2 of BES 6001)		1 : 3.17	Y	Y	N/A	Reduce energy intensity ratio from production by 3% from 2019 levels by 2022
	2.2 CO2 emissions as a proportion of production output	kgCO2 per tonne	Energy & Greenhouse gas Emissions (sections 3.4.1 & 3.4.2 of BES 6001)		244.40kgCO2/tonne	Y	Y	N/A	Reduce kgCO2/tonne emissions from production by 3% from 2019 levels by 2022
	2.2a GHG intensity of production output	Tonnes : kgCO2 Ratio	Energy & Greenhouse gas Emissions (sections 3.4.1 & 3.4.2 of BES 6001)		1 : 244.40	Y	Y	N/A	Reduce GHG intensity ratio from production by 3% from 2019 levels by 2022
	2.2b GHG intensity of production output	£turnover : kgCO2 Ratio	Energy & Greenhouse gas Emissions (sections 3.4.1 & 3.4.2 of BES 6001)		1 : 0.61	Y	Y	N/A	Reduce GHG intensity ratio from production by 3% from 2019 levels by 2022

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CO ₂ Emissions (Transport)	2.3a Average delivery distance travelled per load (from factory gate to customer)	Km/load	Transport Impacts (section 3.4.8 of BES 6001)	No MPA Target Note: 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	236.48km/load (100% road)	Linked to 2.3d	N/A	N/A	Linked to 2.3d
	2.3b Tonnes moved split by modes: road, rail, inland barge, sea	Tonnes moved by each mode	Transport Impacts (section 3.4.8 of BES 6001)		1089461.02 tonnes (100% Road)	Linked to 2.3d	N/A	N/A	Linked to 2.3d
	2.3c Average load for each mode	Tonnes per load	Transport Impacts (section 3.4.8 of BES 6001)		25.28t/load (100% road)	Linked to 2.3d	N/A	N/A	Linked to 2.3d
	2.3d CO _{2e} emissions as a proportion of production output (sales)	kgCO _{2e} per tonne	Transport Impacts (section 3.4.8 of BES 6001)		8.71kgCO _{2e} /tonne (100% road) 0.34kgCO _{2e} /tonne (as part of 25.28t average load)	Y	Y	N/A	Reduce overall kgCO ₂ /tonne by 3% from 2019 levels by 2022

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Recycling	3.1c Recycled content within product	%	Resource Use & Waste Management (sections 3.4.3 & 3.4.4 of BES 6001)		57.50%	Y	N/A	Y	Maintain recycled content above 50% between 2019 and 2022
Water	3.2a Mains water use as a proportion of production output	Litres per tonne	Water Extraction (section 3.4.5 of BES 6001)	Reduce mains water consumption by 20%	560.52Litres/tonne	Y	Y	N/A	Reach optimum level of overall water usage whilst not impacting product quality
	3.2b Controlled groundwater use as a proportion of production output	Litres per tonne	Water Extraction (section 3.4.5 of BES 6001)		416.39Litres/tonne	Y	Y	N/A	Reach optimum level of overall water usage whilst not impacting product quality
	3.2c Mains water intensity of production output	Production tonnes : Litres ratio	Water Extraction (section 3.4.5 of BES 6001)		1 : 560.52	Y	Y	N/A	Reduce 2019 ratio in-line with KPI 3.2a by 2022
	3.2d Controlled groundwater Intensity of production output	Production tonnes : Litres ratio	Water Extraction (section 3.4.5 of BES 6001)		1 : 416.39	Y	Y	N/A	Increase 2019 ratio in-line with KPI 3.2a by 2022
Site Stewardship	3.3 % of relevant production sites that have site specific action plans	% of relevant production sites (and absolute number compared to total)	Resource Use (Section 3.4.3 of BES 6001)	-	100%	Y	N/A	N/A	Maintain at 100%

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Health & Safety	<p>4.1a Reportable Injuries per 1m hours 'direct employees'</p> <p>4.1b Lost time injuries for 'direct employees' per 1 million hours worked</p>	<p>Number of reportable injuries per 1m hours direct employees And absolute number per annum</p> <p>Number of LTI's per 1 million hours worked for direct employees and absolute number per annum</p>	<p>Management systems (section 3.3.3 of BES 6001)</p>	<p><i>Overarching zero harm expectation</i></p>	<p>1.7 per 1 million hours</p> <p>3.12 per 1 million hours</p>	<p>Y</p>	<p>Y</p>	<p>N/A</p>	<p>Overarching Zero harm expectation, and continual reduction in actual number of injuries and LTIFR for 'direct employees'</p>
	<p>4.2a % of employees covered by UKAS certified ISO9001/ISO 14001/OHSAS 18001 systems (Training & competence sections)</p>	<p>% of employees covered by UKAS ISO 9001/14001 or OHSAS 18001 systems</p>							
Employment & Skills	<p>4.2b % of employees covered by environmental and H&S management systems following the principles of BS EN 14001 or OHSAS 18001</p>	<p>% of employees covered by BS EN ISO 14001 or OHSAS 18001 systems</p>	<p>Employment & Skills (section 3.4.9 of BES 6001)</p>	<p><i>Increasing the % of employees covered by MPA Safer by competence training and qualifications to 100%</i></p>	<p>100%</p>	<p>Y</p>	<p>Y</p>	<p>N/A</p>	<p>Maintain % of Relevant employees covered by BS EN ISO 14001 & OHSAS 18001/ISO 45001 management systems at 100%</p>

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Local Community	4.3 % of relevant production sites with community liaison activities (supplemented by 1.3 & 3.3)	% of relevant production sites	Local Communities (section 3.4.10 of BES 6001)	Maintaining the % of relevant production sites that have community liaison activities at 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)		0/tonne	Y	Y	N/A	Overarching zero expectation with year on year reduction of 5% from 2019 to 2022
	4.3b Charitable donations	£	Local Communities (section 3.4.10 of BES 6001)		£19,323.27	Y	Y	N/A	No target

Notes:

This incorporates all Knauf activities (i.e. UK & Ireland).

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GHG ISO 14064-1 mandatory reporting requirements:

Detail of 'Boundaries'

Production processes in relation to 'Plasterboard (laminated and non-laminated) and Gypsum powders'.

Direct and indirect emissions by GHG source

	2019 calendar year
Electricity	29.09426448kgCO ₂ per tonne
Natural gas	211.9320156kgCO ₂ per tonne
Gas oil (i.e. known as Red Diesel or Gas Oil)	1.863192894kgCO ₂ per tonne
LPG	1.511228808kgCO ₂ per tonne

Direct emissions in relation to production are shown as 'Natural gas, Gas oil and LPG (Scope 2)'.

Indirect emissions in relation to production are shown as 'Electricity (Scope 1)'.

Transport emissions in relation to production (i.e. Knauf 'Gate to client' haulage of product) are shown under KPI's 2.3a to 2.3d.

A description of how the CO₂ from biomass fuel is treated

Not Applicable.

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 2019 (new base-line year) unless otherwise stated.

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

Steady progress towards established targets has been made over recent years. Knauf targets have now been expanded and included within this more in-depth annual report.

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 Construction 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 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 CO₂ 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 fuel used in our case is almost exclusively gas/electric, with other fuel sources as defined within the relevant SCF PI Guidance Document appendices. Hence, no 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

CRC verification until closure of scheme (with scheme guidance to 2025 followed thereafter). External independent consultant verification also performed.

Overall summary notes:

Knauf 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. KPI 2.3d relates to the transportation of the assessed product from the production facility to site, and the associated return journey, linked to KPI's 2.3a-c. 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 CO₂ emissions and transport distances. Waste KPI's are based upon actual 2019 data. However, 2019 was an exceptional year. The average waste to landfill over 2009-2019 has been used as the baseline for onward 2022 targets. KPI's 4.1a & 4.1b are based upon rolling 12 months.

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

Additional 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 CO₂ 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. For 'Knauf Transport' from gate to client, for road transportation, the Defra conversion factor 0.80664kgCO₂e/km has been used 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 terms of mitigation of transport impacts, we continue to recognise the high level of savings made by our hauliers, through the consistent use of vehicle telematics and driver performance charts, a high level of driver training, persistent methods of minimising fuel consumption such as an increased emphasis on trailer tyre pressure, and smart witness cameras to monitor our transports for quality and safety.

In accordance with our transport policy, we also 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 CO₂ 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 Construction Industry SCF guidance documents in combination with Defra conversion factors.