Monthly Statistics of Building Materials and Components

# Commentary

October 2015

Coverage: UK and Great Britain Geographical area: Country, region and county Date of publication: 4<sup>th</sup> November 2015

### Headline results Introduction Seasonal Adjustment Summary of results

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### Headline results:

- Construction material prices fell in September. The 'All Work' Construction Material Price Index for September 2015 decreased by 0.2% compared to the previous month.
- Sand & Gravel sales fell. Seasonally adjusted sales of sand & gravel decreased by 8.2% in quarter 3 2015 compared with the same quarter in 2014.
- *Brick deliveries fell.* Seasonally adjusted deliveries of bricks fell 3.1% in September compared to August. Deliveries are at their lowest point since May 2013.





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### **Correction Notice**

In the September 2015 bulletin, published on 8<sup>th</sup> October 2015, we reported that the price index for concrete reinforcing bars in August 2015 was 97.8. This number is incorrect. The correct index value for this month is 87.8. Table 2 has been corrected.

### Introduction

*Concrete blocks data:* This is the first edition of the bulletin in which regional concrete blocks data are published monthly instead of quarterly. Table 12 has been re-designed to incorporate monthly regional data, which has been backdated to January 2015. We would welcome any feedback. Please send any comments to: <u>MaterialStats@bis.gsi.gov.uk</u>.

This commentary accompanies the latest Monthly Statistics of Building Materials and Components bulletin, published on the BIS building materials <u>web page</u> on the 4<sup>th</sup> of November 2015. It aims to provide a brief overview of recent trends in the data presented in the bulletin.

The bulletin presents the latest detailed information on selected building materials and components. It covers the following building materials statistics (in parentheses, the data collection frequency and the geographical area covered):

- Construction material price indices (monthly, UK)
- Sand and gravel sales (quarterly, GB\*)
- Slate production, deliveries and stocks (quarterly, GB)
- Cement and clinker production, deliveries and stocks (annual, GB)
- Bricks production, deliveries and stocks (monthly, GB\*)
- Concrete building blocks production, deliveries and stocks (monthly, GB\*)
- Concrete roofing tiles production, deliveries and stocks (quarterly, GB)
- Ready-mixed concrete deliveries (quarterly, UK)
- Values of overseas imports and exports trades for selected materials and components for use in construction (quarterly, UK)
- Value of EU and Non-EU Trade for selected materials and components for use in construction (annual, UK)

Note: \* Regional figures available

These statistics support analysis of the construction materials market and business planning. They are regularly reported in the construction press and are used for a variety of purposes, including policy development and evaluation concerning the construction products industry, as well as monitoring market trends. Further detail is available in this document under <u>Uses of the data</u>.

### Seasonal Adjustment

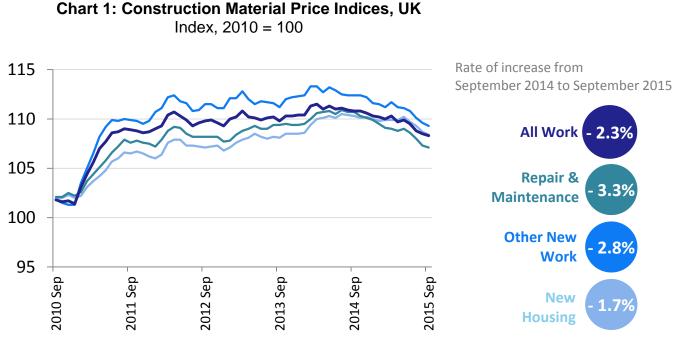
In work done for the Department for Business, Innovation and Skills (BIS) on improving the quality of statistics published in the Monthly Statistics of Building Materials and Components, the Office for National Statistics' Methodology Advisory Service (MAS) recommended that BIS should start seasonally adjusting key data series (see <u>ONS/MAS review of building materials statistics: final report</u> for more detail). Seasonal adjustment is widely used in official statistics and aids data interpretation by removing effects associated with the time of the year or arrangement of the calendar. Seasonal effects frequently obscure features of interest in data, such as long term trends and the effects of unusual occurrences. By removing seasonal effects, users can more readily identify the features of interest.

Following advice from the MAS, and the results of a consultation (see the <u>results of the BIS</u> <u>consultation on seasonal adjustment</u> for more detail), BIS agreed to publish seasonally adjusted data for the following series:

- Sand and gravel, total sales
- Concrete blocks, all types deliveries
- Bricks, all types deliveries
- Ready-mixed concrete, deliveries

For the initial publication of seasonally adjusted data, data from 1983 onwards will be seasonally adjusted. Subsequently, for each monthly publication, data up to 12 months or 4 quarters previous to the new data point will be revised. Upon the completion of each year's data series, data for the previous 12 years will be revised. BIS will publish both non-seasonally adjusted and seasonally adjusted data in the tables of this publication. From the June 2015 edition of this publication onwards, BIS will only publish seasonally adjusted data in the commentary.

### Summary of results



Source: Table 1, Monthly Statistics of Building Materials and Components

The headline 'All Work' Construction Material Price Index decreased by 0.2% in September 2015 compared to the previous month, following a 0.3% decrease in August. In September, 'New Housing', 'Other New-Work' and 'Repair and Maintenance' all decreased by 0.3%, 0.3% and 0.2% respectively. Looking at the longer term change, the 'All Work' material price index fell by 2.3% in September 2015 compared to the same month in the previous year. This is the 10<sup>th</sup> consecutive decrease on this basis.

From December 2010 to June 2011, construction material prices increased rapidly, rising by 7.0% over the period. The price of construction materials has been declining steadily since June 2014. It is now at its lowest point since May 2011.

#### Table 1: Construction materials experiencing the greatest price increases and decreases in the 12 months to September 2015, UK

Construction Materials	% change on a year earlier
Greatest price increases Other builders' ironmongery All bricks Blocks, bricks, tiles and flagstones cast concrete)	11.6 5.5 (pre- 4.9
Greatest price decreases Imported sawn or planed wood Sawn wood Asphalt products	-10.2 -8.4 -6.6

The 'All Work' Construction Material Price Index shows that the year-onyear change in material costs for September 2015 was -2.3% (see chart 1). However, this aggregated figure hides larger price movements for some specific products and materials. The three largest increases and decreases are presented here.

Source: Table 2, Monthly Statistics of Building Materials and Components

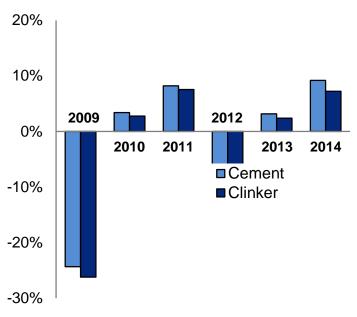


Chart 2: Production of Cement and Clinker, GB

Percentage change over previous year (%)

Source: Table 8, Monthly Statistics of Building Materials and Components

Cement production rose by 9.2% to 9.0 million tonnes in 2014, compared to the previous year. This growth in cement production follows growth of 3.2% to 8.2 million tonnes in 2013. Pre-recession production peaked in 2007 at 11.9 million tonnes.

Production of Clinker rose by 7.2% to 7.2 million tonnes in 2014, compared to the previous year. This growth in clinker production follows growth of 2.4% to 6.7 million tonnes in 2013. Pre-recession production, in 2007, stood at 10.2 million tonnes.

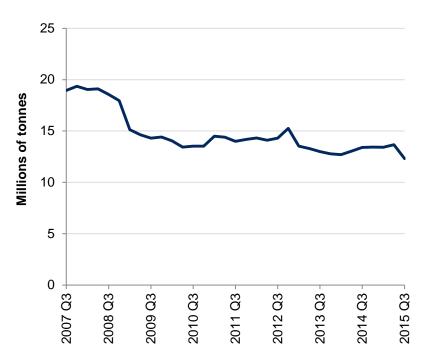
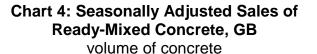
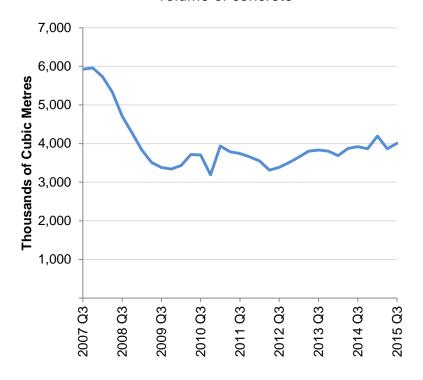


Chart 3: Seasonally Adjusted Sales of Sand & Gravel, GB

weight of sand & gravel

Source: Table 4, Monthly Statistics of Building Materials and Components





Seasonally adjusted sales of sand & gravel have declined since the recession, and have now reached their lowest point since the 1950s.

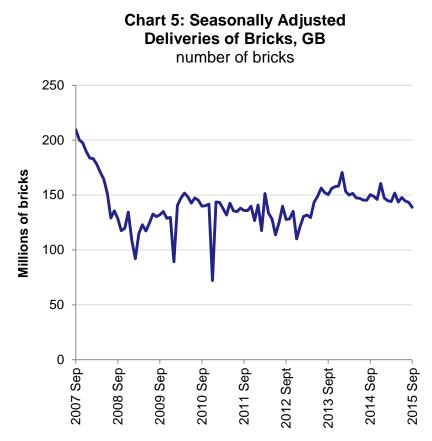
Sales of sand & gravel decreased 9.9% in 2015Q3 compared to 2015Q2, following an increase of 1.9% in 2015Q2.

Comparing 2015Q3 to the same quarter in the previous year, sales have decreased by 8.2%.

For ready-mixed concrete, the seasonally adjusted data show that the lowest quarterly sales in the post-recession period occurred in 2010Q4, which included extreme winter conditions.

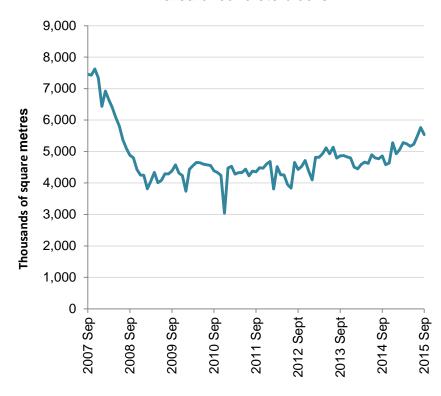
Sales have steadily recovered since 2012Q2. Sales increased 3.6% in 2015Q3 compared to 2015Q2, following a 7.8% decrease in 2015Q2. Sales in 2015Q3 increased by 2.2% compared to the same quarter in the previous year, following a decrease in 2015Q2, on the same basis.

Source: Table 13, Monthly Statistics of Building Materials and Components



Source: Table 9, Monthly Statistics of Building Materials and Components





Source: Table 11, Monthly Statistics of Building Materials and Components

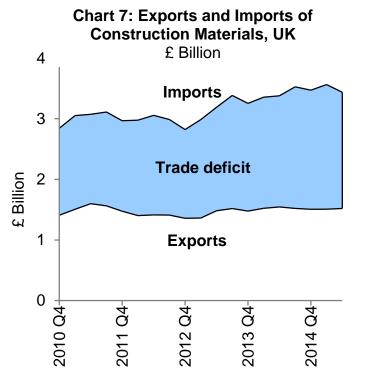
Brick deliveries declined during the recession, and reached their lowest value during the extreme cold weather in December 2010.

The seasonally adjusted figures for September 2015 show a 7.6% decrease in deliveries of bricks compared with September 2014. This follows a 1.2% decrease in August, on the same basis. The month-on-month change shows a 3.1% decrease in September, following a 0.8% decrease in August.

Brick deliveries are now at their lowest point since May 2013.

Concrete block deliveries declined during the recession, and reached their lowest value during the extreme cold weather in December 2010.

The seasonally adjusted deliveries figures show an increase of 13.9% in September 2015 compared to the same month in the previous year. This is the 10<sup>th</sup> consecutive increase on this basis, and follows an increase of 20.7% in August 2015 on the same basis. The month-onmonth change shows a decrease of 3.8% in September, following an increase of 4.9% in August.

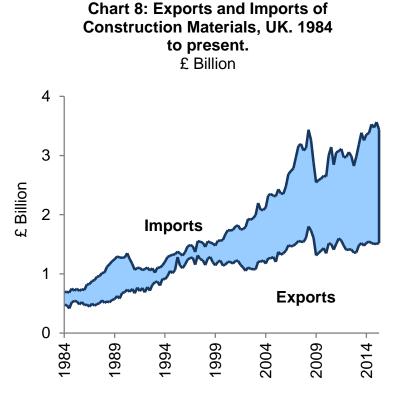


Source: Table 14, Monthly Statistics of Building Materials and Components

Exports of construction materials increased by  $\pounds$ 12.2 million in the second quarter of 2015 (to  $\pounds$ 1,520 million) compared to the previous quarter, an increase of 0.8%.

Imports decreased in the second quarter of 2015 by £127 million (to £3,437 million), a 3.6% decrease. As a result, the trade deficit decreased by £139 million to £1,917 million in 2015Q2.

The decrease of the trade deficit in 2015Q2 was largely due to a decrease in the trade deficit for products and components of £135 million. For semi-manufactures, the trade deficit decreased by £12 million. The raw materials trade deficit increased, by £7.0 million.



Source: Table 14, Monthly Statistics of Building Materials and Components

Over the period 1984Q1 to 2015Q2, construction materials imports have increased, on average, by 3.2% per quarter. Over the same period, exports increased by an average of 1.8% per quarter.

The trade deficit was historically at its smallest throughout the 1990s, with a mean of £0.3 billion over this period. This trade deficit was 24% of the value of imports. Currently (2015Q2), the trade deficit is £1.9 billion, 56% of the value of imports.

## Table 2: Top-5 UK Exported and Imported ConstructionMaterials in 2014

£ Million Top-5 Exported Materials		Top-5 Imported Materials	
Paints & Varnishes Electrical Wires Plugs & Sockets Lamps & Fittings Air Conditioning Equip.	644 290 283	Electrical Wires Sawn Wood > 6mm thick Lamps & Fittings Central Heating Boilers Air Conditioning Equip.	1,574 847 813 591 534

Source: Table 14, Monthly Statistics of Building Materials and Components

The top five exported materials in 2014 accounted for 35% of total construction material exports.

The top five imported construction materials in 2014 accounted for 32% of total construction material imports.

### Table 3: UK Trade of Construction Materials with EUand Non-EU Countries, 2014

£ Million (% of total trade in italics)				
All Building Materials & Components EU			Non-EU	
Imports		8,534	5,194	
		62%	38%	
Exports		3,601	2,489	
		59%	41%	

Compared to prerecession levels in 2007, the share of total UK construction material exports going to the EU has declined from 70% to 59%.

Source: Table 15, Monthly Statistics of Building Materials and Components

## Table 4: Top 5 UK Export and Import Markets for<br/>Construction Materials in 2014

	£ Million Top-5 Export Markets		Top-5 Import Mar	kets
Germany579Germany2,09France529Italy89USA474Spain7	Germany France USA	579 529 474	Germany Italy Spain	2,171 2,052 896 715 657

Source: HMRC Overseas Trade Statistics

The top five export markets comprised 46% of total construction materials exports in 2014. The Republic of Ireland remains the largest market, despite having shrunk from a pre-recession peak of 27% of total exports in 2007, to 13% in 2014.

The top 5 import markets comprised 47% of total construction materials imports in 2014. China has overtaken Germany as the leading source of UK construction material and component imports, with 16% of all imports.

The '<u>Rotterdam Effect</u>' (also known as the 'Antwerp Effect') may affect trade figures. This is explained in detail by <u>HM Revenue & Customs</u>.

### **Economic Background**

The most recent construction output figures for August 2015 were published by the **Office for National Statistics** (ONS) on the 9<sup>th</sup> of October 2015. Significant revisions have been made in this month's release. The estimates have been revised to be consistent with 2015Q2 Quarterly National Accounts, consistent with Blue Book 2015. Each component of GDP has a weight based on its value in 2012. Construction now contributes 5.9% to GDP. In 2011, this contribution was 6.4%. Output is estimated to have decreased by 4.3% in August 2015 compared to July 2015. Compared with August 2014, output in the construction industry showed a decrease of 1.3% in August 2015. This is the first such decrease following 26 consecutive months of year-on-year growth. All New Work decreased in August 2015 compared to July 2015 by 3.6%. Repair & Maintenance decreased by 5.6% over the same period. All work types reported decreases.

The **ONS** published a preliminary estimate to gross domestic product, 2015Q3 on 27<sup>th</sup> October 2015. GDP is estimated to have increased by 0.5% in 2015Q3, compared with growth of 0.7% in the previous quarter. Manufacturing fell by 0.3% and construction output decreased by 2.2%. GDP was 2.3% higher in 2015Q3 compared with the same quarter in the previous year.

The latest monthly **Consensus Economics** forecasts in October 2015 (which uses an average of private sector forecasts) lowered its GDP growth revisions. Expectations for 2015 were revised downwards to 2.5% growth (previously 2.6%). The forecast for 2016 was also revised downwards to 2.4% growth (previously 2.5%).

In July 2015, the **Office for Budget Responsibility** revised its GDP growth expectation down to 2.4% (previously 2.5%). The forecast for 2016 remains unrevised at 2.3% growth.

The **Bank of England** published its latest Agents' Summary of Business Conditions for Quarter 3 2015 on the 16<sup>th</sup> of September 2015. It was reported that demand for commercial property had increased, however housing market activity had picked up by less than what was expected. Construction output growth had edged up as commercial development activity had risen alongside robust house building activity. Rising demand for office and industrial space had encouraged more commercial development. Older office space had increasingly been converted into residential or student accommodation. Growth in retail construction had remained relatively subdued.

This autumn, **Experian** revised their expectations for the construction sector. Their prediction for 2015 was revised downwards, to 3.5% growth, a fall of 2.0 percentage points compared to their spring estimate. Expectations for 2016 were revised downwards, to 3.6% growth, with a further 4.3% forecast for 2017. Strong growth is predicted in 2015 for new work. Most notably, there are forecasts of 25.0% growth for Infrastructure, 7.0% for Private Industrial and 6.0% for Private Housing. Repair & Maintenance is predicted to decline, with a fall of 0.5% expected.

The **Construction Products Association** forecasts published in August reported that the construction sector is expected to grow by 4.9% in 2015, revised downwards from 5.5% in their spring forecast. Output is expected to rise a further 4.2% in 2016. Overall, output is forecast to grow by 21.7% between 2015 and 2019. Growth in 2015 is expected to be driven by rising output in Private Housing (+9.0%), Commercial Offices (+7.0%), and Industrial Construction (+9.1%). The Construction Products Association expects to downgrade its 2015 growth forecast in its next publication.

### **Background notes**

#### **Quality information for the Building Materials bulletin**

1. The United Kingdom Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics.

Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs;
- are well explained and readily accessible;
- are produced according to sound methods, and
- are managed impartially and objectively in the public interest.

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed. The full assessment <u>report</u>, published on 22nd December 2011, can be found on the UK Statistics Authority website.

2. Quality issues related to the *Building Materials and Components* outputs are discussed in the review of the Building Material statistics that was carried out in 2010 by BIS's construction team. The review aimed to: ascertain user needs; examine whether existing data collection methodologies are fit for purpose; estimate compliance costs; assess compliance with the Code of Practice; and identify options for change.

The full report can be found on the BIS Building Materials and Components webpage.

Detailed information on data suppliers, coverage and data collection methodology can be found in sections 2.1-2.10. Quality issues (coverage and accuracy of sample panels, response rates, survey results processing, disclosure etc.) and potential measures that could be employed to improve the quality of the statistics are discussed in section 2.11 of the review. Users' views on the quality of the *Building Materials and Components* statistics are given in section 3.3.4. These are derived from a user survey carried out in early 2010, as part of the review (see section 3 for details).

- Following the review, BIS acted on the recommendations including commissioning the Office for National Statistics Methodology Advisory Service (ONS/MAS) to address some of the recommendations from the 2010 review. In July 2011, MAS published their <u>interim report</u>. In July 2012, MAS published their <u>final report</u>. This will inform a full summary Quality Report that will be published by BIS shortly.
- 4. HM Revenue and Customs use administrative sources to produce Overseas Trade Statistics. A <u>Statement of Administrative Sources</u> used to compile construction material trade statistics is available on the BIS *Building Materials and Components* webpage:

Separately, HM Revenue and Customs also have a <u>Statement of Administrative Sources</u> which covers Overseas Trade Statistics.

5. <u>The pre-announcement of any major changes to samples or methodology</u> also details some methodological changes to the collection of data.

6. The following table gives a summary of response rates related to some of the latest survey results. Where the response rate is less than 100%, estimates are made for missing values.

For latest data used	Bulletin table number	Response rate
Quarterly Sand and Gravel	4, 5 & 6	78%
Quarterly Sand and Gravel – Land Won	4,5&6	74%
Quarterly Sand and Gravel – Marine Dredged	4, 5 & 6	93%
Quarterly Slate	7	100%
Quarterly Concrete Roofing Tiles	13	100%
Monthly Bricks Provisional data	9	97%
Monthly Bricks Final data	9 & 10	100%
Monthly Concrete Blocks	11	93%

### Uses of the data

7. The Building Materials and Components statistics are used for a variety of purposes, including policy development and evaluation concerning the construction products industry, as well as monitoring market trends. In a wider context, the figures are regularly reported in the construction press to facilitate market analysis and business planning for its wide range of readers. The statistics are also increasingly used by financial institutions for assessing market information and industry trends. For more information on the uses of the Building Materials statistics, their usefulness to users and users' views on the quality of these statistics, see Section 3 of the Building Materials and Components review.

### **Related Statistics**

- 8. <u>Construction Statistics: Sources and Outputs</u> lists the known sources of information available on the construction industry and their outputs. These include information on employees, employment, enterprises, output and new orders in the construction industry as well as the contribution of the industry to the economy. Related information, for example housing, is also included.
- 9. The <u>Construction Statistics Annual</u> brings together a wide range of statistics currently available on the construction industry from a variety of sources and provides a broad perspective on statistical trends in the construction industry, with some international comparisons.
- 10. In its monthly **Index of Production (IoP)** publication, the ONS publishes Gross Value Added (seasonally adjusted, UK) data for the following two industries:
  - SIC 23.1-4/7-9 industry, which includes the manufacture of bricks, tiles and other construction products.
  - SIC 23.5-6 industry, which includes the manufacture of concrete, cement and other products for construction purposes.

These data are not directly comparable with the data in this bulletin, due to differences in coverage and methodology. They are nevertheless useful in illustrating the latest output trends of related construction materials as measured by the ONS.

The latest **Index of Production** data for August 2015 were published on the 7<sup>th</sup> of October 2015. The data in this release are consistent with the Quarterly National Accounts published on the 30<sup>th</sup> of September 2015 and data used for the Blue Book 2015 due for release on the 30<sup>th</sup> of October 2015.

Output in the SIC 23.1-4/7-9 industry grew by 4.5% in 2015Q2, when compared to the same quarter in the previous year. Comparing August 2015 with August 2014, the index grew by 0.9%, following a rise in July of 6.3% on the same basis. Comparing August 2015 with the previous month, the index fell by 5.6%.

Output in the SIC 23.5-6 industry decreased by 0.3% in 2015Q2, compared to 2014Q2. This was the first such decrease following five consecutive increases on this basis. Comparing August 2015 with August 2014, the index decreased by 11.4%, following a fall of 10.4% in July on the same basis. Comparing August 2015 with the previous month, the index grew by 1.5%.

### Revisions

- 11. Our <u>revisions policy</u> can be found on the BIS Building Materials webpage.
- 12. <u>The pre-announcement of any major changes to samples or methodology</u> and <u>Summary of</u> <u>Revisions</u> give further information on revisions and other changes to data and can also be found on the BIS Building Materials webpage.

### **Further information**

The coverage of cement and cementitious statistics changed from UK to GB in 2002 due to data confidentiality issues in Northern Ireland as the number of manufacturers decreased. Where the coverage of figures for other building materials is limited to Great Britain (i.e. sales of sand and gravel, and production, deliveries and stocks of slate, clinker, bricks, concrete building blocks and concrete roofing tiles), no equivalent data are collected for Northern Ireland.

The most recently published bulletin and accompanying data tables can be found on BIS' *Building Materials and Components* <u>website</u>.

Accompanying tables with data relating to 2011 are accessible from this link.

Accompanying tables for 2005 - 2010 are accessible from this link.

Requests for older data should be sent to <u>MaterialStats@bis.gsi.gov.uk</u>.

Please send us any comments or feedback you may have about this commentary.

Next publicat	ion:	2 <sup>nd</sup> December 2015
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https://www.gov.uk/government/organisations/department-for-business-innovationskills/series/building-materials-and-components-monthly-statistics-2012

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First published November 2015.

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