

United Kingdom Minerals Yearbook 2020

Decarbonisation and Resource Management Programme
Open Report OR/21/014



BRITISH GEOLOGICAL SURVEY

DECARBONISATION AND RESOURCE MANAGEMENT PROGRAMME
OPEN REPORT OR/21/014

United Kingdom Minerals Yearbook 2020

T. Bide, T.J. Brown, N.E. Idoine and J. Mankelow

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export.

Front cover

Industrial sand stockpile at
Bent Farm quarry, operated
by Sibelco, Congleton.

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British Geological Survey offices

**Nicker Hill, Keyworth,
Nottingham NG12 5GG**

Tel 0115 936 3100

BGS Central Enquiries Desk

Tel 0115 936 3143

email enquiries@bgs.ac.uk

BGS Sales

Tel 0115 936 3241

email sales@bgs.ac.uk

**The Lyell Centre, Research Avenue South,
Edinburgh EH14 4AP**

Tel 0131 667 1000

email scotsales@bgs.ac.uk

**Natural History Museum, Cromwell Road,
London SW7 5BD**

Tel 020 7589 4090

Tel 020 7942 5344/45

email bglondon@bgs.ac.uk

**Cardiff University, Main Building, Park Place,
Cardiff CF10 3AT**

Tel 029 2167 4280

**Maclean Building, Crowmarsh Gifford,
Wallingford OX10 8BB**

Tel 01491 838800

**Geological Survey of Northern Ireland, Department of
Enterprise, Trade & Investment, Dundonald House,
Upper Newtownards Road, Ballymiscaw,
Belfast, BT4 3SB**

Tel 01232 666595

www.bgs.ac.uk/gsni/

**Natural Environment Research Council, Polaris House,
North Star Avenue, Swindon SN2 1EU**

Tel 01793 411500

Fax 01793 411501

www.nerc.ac.uk

**UK Research and Innovation, Polaris House,
Swindon SN2 1FL**

Tel 01793 444000

www.ukri.org

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Explanatory notes

Coverage: Except where otherwise stated all the statistics shown relate to the United Kingdom of Great Britain and Northern Ireland.

The Channel Islands and the Isle of Man are also included in the 'United Kingdom' overseas trade statistics, but are excluded from the production statistics. The UK part of the Continental Shelf is included in both the overseas trade and the production statistics.

All figures for the latest year shown are provisional and subject to revision.

Rounding of figures: In tables where figures have been rounded to the nearest final digit, there may be a slight discrepancy between the sums of the constituent items and the total as shown.

Units: The statistics in this volume are expressed in metric units. The following factors are given for converting from or into non-metric units:

<i>Troy ounce</i>	<i>Kilogram</i>	<i>Square yard</i>	<i>Square metre</i>
1	= 0.0311035	1	= 0.836127
32.1507	= 1	1.19599	= 1
<i>Pound</i>	<i>Kilogram</i>	<i>Cubic yard</i>	<i>Cubic metre</i>
1	= 0.453592	1	= 0.764555
2.20462	= 1	1.30795	= 1
<i>Hundredweight</i>	<i>Kilogram</i>	<i>UK gallon</i>	<i>Litre</i>
1	= 50.8023	1	= 4.54596
0.019684	= 1	0.2199755	= 1
<i>Long ton</i>	<i>Tonne</i>		
1	= 1.01605		
0.984206	= 1		

Symbols: The following symbols are used throughout:

...	Figures not available
0	Quantity less than half the unit shown
—	Nil
nes	Not elsewhere specified
BGS	British Geological Survey

Apparent consumption: BGS estimates of apparent consumption of metals are based on the formula: production (primary and secondary) plus imports minus exports. All the main traded forms of the metal are taken into account, for example, ores, concentrates, intermediate products, unwrought metal and alloys, oxides, etc. Figures are given in terms of metal content. No information is available for stock changes. Such estimates of apparent consumption are made for metals for which there are no reported consumption statistics: in this edition data are given for chromium, cobalt, manganese, molybdenum, titanium and zirconium.

Trade: Trade figures from INTRASTAT, the system for measuring intra-EC trade became available from 1993. This was introduced following the abolition of customs controls as a result of the Single Market and trade figures are now compiled from data provided directly from companies instead of Customs documents. Extra-EC trade continues to be collected from Customs declarations as before. The transition from one system to another has produced some anomalous figures in terms of the size of the trade in and unit value of certain commodities. These factors should be taken into consideration when evaluating trends. Figures given in this edition are the combined intra and extra-EC trade data.

Values of commodities are c.i.f. (Cost, Insurance and Freight) for imports and f.o.b. (free on board) for exports.

The terms 'scrap', 'unwrought' and 'wrought' metal include alloys unless these are separately shown.

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SOURCES OF INFORMATION

In compiling this volume the BGS has largely relied upon data originally collected by other bodies. A list of the departments and organisations concerned is given below, together with the titles of principal publications that have been used. In many cases the BGS has also been provided with supplementary or unpublished information. Interested readers are strongly advised to consult the original sources themselves wherever possible and in this connection may wish to refer not only to the publications as listed here, but also earlier issues in the same series, some of which were published under different titles.

Information about the production of minerals in the United Kingdom is given from 1853 to 1881 in a series of Geological Survey Memoirs entitled *Mineral Statistics*, by Robert Hunt, Keeper of Mining Records; earlier information for certain metalliferous minerals is also available. Since 1873 all collieries and metalliferous mines have been required by statute to complete annual returns of production, and since 1895 the same has applied to quarries. These returns were made to the Home Office, which, in 1882, was made responsible for the publication of *Mineral Statistics*. In 1920 responsibility for collection of returns was transferred to the Mines Department (Board of Trade) and statistics were subsequently published in the Annual Reports of the Secretary of Mines. The Mines Department was incorporated into the Ministry of Fuel and Power in 1942 and statistics from 1938 to 1972 were published in their Statistical Digests (subsequently the Digests of Energy Statistics of the Department of Trade and Industry). In 1973 responsibility for the collection of returns relating to most minerals other than fuels was transferred to the Business Statistics Office (formerly part of the Department of Trade and Industry, now the Office for National Statistics). The Annual Minerals Raised Inquiry was conducted by the Office for National Statistics and published annually as *Mineral Extraction in Great Britain* until early 2016 (the last year of data is 2014). For 2015 onwards this volume has attempted to obtain data from alternative sources to fill as many of the data gaps as possible. These sources include the Mineral Products Association and the British Ceramics Confederation (amongst others). The Department of Business, Energy and Industrial Strategy (formerly Department of Energy and Climate Change), collects statistics relating to hydrocarbons (natural gas and crude petroleum). Statistics on coal production are collected by The Coal Authority. Details of mineral production in Northern Ireland since 1922 have been obtained by the Northern Ireland Government.

1853–1881 *Mineral Statistics*, by Robert Hunt, Keeper of Mining Records; Memoirs of the Geological Survey

1882–1896 *Mineral Statistics*; Home Office

1897–1919 *Mines and Quarries: General Report with Statistics*; Home Office

1920 *Mines and Quarries: General Report with Statistics*; Mines Department, Board of Trade

1921–1938 *Annual Report of the Secretary of Mines*; Mines Department, Board of Trade (Great Britain only from 1922)

1938–1972 *Statistical Digest*; Ministry of Fuel and Power (Great Britain only)

1973–2018 *Digest of United Kingdom Energy Statistics*; Department for Business, Energy and Industrial Strategy

(formerly published by Department of Energy and Climate Change, Department for Business Enterprise and Regulatory Reform, Department of Trade and Industry or Department of Energy)

1973–1993 *Minerals (PA1007)*; Central Statistical Office

1994–2014 *Mineral Extraction in Great Britain (PA 1007)*; Office for National Statistics

1922–1949 *Annual Report of the Mining and Quarrying industries in Northern Ireland*; Ministry of Commerce (Northern Ireland)

1950–1981 *Mineral Production in Northern Ireland*; Department of Commerce (Northern Ireland)

1982–1995 *Mineral Production in Northern Ireland*; Department of Economic Development (Northern Ireland)

1996–1998 *Annual Minerals Statement*; Department of Economic Development (Northern Ireland)

1999–2011 *Annual Mineral Statement*; Department of Enterprise, Trade and Investment (Northern Ireland)

2012–2019 *Annual Mineral Statement*; Department for the Economy (Northern Ireland)

Advisory and Finance Committee (Guernsey)

British Ceramic Confederation

Department for Business, Energy & Industrial Strategy: *Digest of United Kingdom Energy Statistics (annual)*, *Energy Trends*, *Monthly Statistics of Building Materials and Components*, *BEIS website for construction information*

Department for the Economy (Northern Ireland), *Annual Mineral Statement*

Department for Enterprise (Isle of Man)

The Coal Authority

The Crown Estate

HM Revenue and Customs, website: www.uktradeinfo.com/Pages/Home.aspx, *Overseas Trade Statistics (monthly, quarterly and annual)*, *Guide to the Classification for Overseas Trade Statistics*

Mineral Products Association (MPA)

Office for National Statistics, UK Statistics Authority, Website: <http://www.statisticsauthority.gov.uk> or www.statistics.gov.uk, *Monthly Digest of Statistics*, *Mineral Extraction in Great Britain (annual)*, *United Kingdom National Accounts*, *UK Manufacturers' Sales by Product (PRODCOM)*

UK Iron and Steel Statistics Bureau, *Annual Statistics*

World Bureau of Metal Statistics, *World Metal Statistics (monthly)*

CHANGES TO PREVIOUS EDITIONS

Many of the tables in previous editions of the UK minerals yearbook were reliant on the Annual Mineral Raised Inquiry (AMRI), an annual survey conducted by the Office for National Statistics, completed by minerals operators, that measured sales of minerals extracted in Great Britain (assumed to be equivalent to mineral production). The AMRI survey ceased in early 2016 (the last year of data is 2014) resulting in the interruption of several data series. The results of this survey were the only source of data for sales by end-use and sales of individual rock types (e.g. sandstone, limestone or igneous rock). The end-use data included sales for industrial uses, building stone, agricultural uses, different types of aggregate uses such as concrete or asphalt, etc. Furthermore, production data for some mineral commodities now relies on estimates as opposed to reported data, e.g. salt, or are absent altogether because an estimate is not feasible, e.g. peat. As a consequence, the following tables from earlier editions of the UK Minerals Yearbook are not included in this book:

- Great Britain estimated consumption of natural aggregates
- Great Britain production of crushed rock by end-use
- Great Britain production of crushed rock, gravel and sand for use in concrete
- Great Britain production of crushed rock for use as roadstone
- Great Britain production of crushed rock for railway ballast
- England production of crushed rock by end-use
- Wales production of crushed rock by end-use
- Scotland production of crushed rock by end-use
- England production of igneous rock by end-use
- Wales production of igneous rock by end-use
- Scotland production of igneous rock by end-use
- Great Britain production of limestone and chalk for cement
- Great Britain production of limestone, dolomite and chalk for agricultural uses
- Great Britain Production of limestone dolomite and chalk for industrial uses
- Great Britain production of limestone dolomite and chalk for industrial uses by end-use
- Great Britain production of limestone dolomite and chalk for calcination
- Great Britain production of limestone dolomite and chalk for iron & steel making
- England production of limestone by end-use
- Wales production of limestone by end-use
- Scotland production of limestone by end-use
- Great Britain production of dolomite by end-use
- England production of chalk by end use
- Great Britain production of sand and gravel by end-use and area of origin
- England production of sand and gravel by end-use
- Wales production of sand and gravel by end-use
- Scotland (land-won) production of sand and gravel by end-use
- England production of sandstone by end-use
- Wales production of sandstone by end-use
- Scotland production of sandstone by end-use
- Great Britain production of silica sand by end-use and area of origin

In addition to these tables, rows for production in published tables for several commodities, such as igneous rock, sandstone, chalk and limestone are no longer available for years from 2015 onwards.

Trade in minerals and mineral-based products compared with total trade 2013–2019

£ million

SITC section		2013	2014	2015	2016	2017	2018	2019	
Imports (c.i.f.)									
0, 1	Food, beverages, tobacco	39 226.3	38 705.2	38 756.3	41 728.6	45 245.7	46 209.3	47 541.9	
2, 4	Basic materials	11 740.3	11 171.4	10 099.4	10 368.9	11 777.4	12 105.8	12 354.1	
	of which: Minerals	5 003.5	4 298.5	3 369.2	3 296.3	3 779.3	3 788.0	3 997.4	
3	Fuels and related materials	56 009.5	48 890.1	33 325.2	29 392.1	40 085.7	50 415.6	43 971.9	
	of which: Mineral-based	55 072.6	47 867.7	32 375.4	28 609.7	39 211.4	49 105.6	42 912.2	
	Manufactured goods:								
5, 6	Semi-manufactures	96 591.8	95 193.4	93 613.1	99 707.2	111 349.6	113 457.7	114 301.1	
	of which: Mineral-based	38 629.2	33 426.4	30 663.0	32 171.9	38 566.3	40 502.9	41 463.3	
7, 8	Finished manufactures	201 707.6	210 948.2	219 755.1	239 979.2	253 386.7	253 603.3	262 977.1	
	All traded goods	Total	405 275.6	404 908.3	395 549.0	421 175.9	461 845.1	475 791.8	481 146.2
	of which: Mineral-based	98 705.3	85 592.6	66 407.6	64 077.9	81 557.1	93 396.5	88 373.0	
	As % of all traded goods	24.4	21.1	16.8	15.2	17.7	19.6	18.4	
Exports (f.o.b.)									
0, 1	Food, beverages, tobacco	18 860.8	18 899.7	18 316.9	20 284.7	22 041.0	22 582.9	23 820.6	
2, 4	Basic materials	7 414.0	6 830.7	5 894.2	6 255.7	7 602.3	7 841.3	7 404.7	
	of which: Minerals	4 337.0	4 020.2	3 396.9	3 666.0	4 681.3	4 959.4	4 721.0	
3	Fuels and related materials	39 615.7	33 538.4	21 540.9	19 151.5	27 421.1	35 009.8	31 671.6	
	of which: Mineral-based	39 447.7	33 414.9	21 463.0	19 048.3	27 247.8	34 883.7	31 530.8	
	Manufactured goods:								
5, 6	Semi-manufactures	81 764.9	77 135.5	79 167.0	78 973.8	86 412.7	86 532.3	86 205.6	
	of which: Mineral-based	33 300.0	28 669.6	29 007.8	26 558.1	30 721.5	32 849.0	32 996.1	
7, 8	Finished manufactures	146 888.8	146 670.1	149 442.9	162 543.5	177 989.4	180 564.9	190 918.1	
	All traded goods	Total	294 544.2	283 074.4	274 361.8	287 209.3	321 466.4	332 531.3	340 020.6
	of which: Mineral-based	77 084.7	66 104.7	53 867.7	49 272.4	62 650.7	72 692.1	69 247.9	
	As % of all traded goods	26.2	23.4	19.6	17.2	19.5	21.9	20.4	

This table no longer includes Section 9 'other commodities' as the data for monetary gold is no longer available, Section 9 has been removed from previous years so comparisons can be maintained.

A small percentage of trade figures are confidential, these are not included in the above figures

Balance of trade in minerals and mineral-based products 2015–2019

£ million (a)

SITC (R3) divisions	2015	2016	2017	2018	2019	
27	Crude minerals and fertilisers:					
	imports	500.1	562.4	719.4	719.0	746.2
	exports	392.4	405.2	460.7	499.8	481.6
		-107.7	-157.2	-258.7	-219.1	-246.6
28	Metal ores and scrap:					
	imports	2 869.1	2 733.9	3 059.9	3 069.0	3 251.2
	exports	3 004.5	3 260.8	4 220.6	4 459.6	4 239.3
		+135.4	+526.9	+1 160.7	+1 390.6	+988.1
32	Coal, coke and briquettes:					
	imports	1 317.9	681.8	989.3	1 216.4	904.5
	exports	84.0	86.4	76.4	137.2	141.9
		-1 233.9	-595.4	-912.9	-1 079.2	-762.7
33	Petroleum, petroleum products and related materials:					
	imports	24 254.8	21 611.2	29 518.6	37 078.7	35 431.5
	exports	18 464.1	16 804.3	24 322.9	31 929.1	29 223.8
		-5 790.7	-4 807.0	-5 195.8	-5 149.6	-6 207.7
34	Gas, natural and manufactured:					
	imports	6 802.8	6 316.7	8 703.5	10 810.5	6 576.2
	exports	2 915.0	2 157.7	2 848.6	2 817.4	2 165.2
		-3 887.8	-4 159.0	-5 854.9	-7 993.1	-4 411.0
51	Organic chemicals:					
	imports	6 220.3	6 452.7	7 401.3	8 159.0	8 014.8
	exports	8 616.3	7 443.5	7 918.8	8 502.2	8 687.3
		+2 396.1	+990.8	+517.5	+343.2	+672.5
52	Inorganic chemicals:					
	imports	2 198.8	1 893.0	2 045.7	2 329.0	2 177.7
	exports	1 616.7	1 512.7	1 515.9	1 611.1	1 673.0
		-582.1	-380.2	-529.8	-717.8	-504.6
56	Manufactured fertilisers:					
	imports	239.0	230.7	287.1	345.6	372.8
	exports	184.5	193.5	197.3	183.9	193.5
		-54.4	-37.2	-89.8	-161.7	-179.3
53–59 (part)	Miscellaneous chemical products:					
	imports	5 638.1	6 030.2	7 094.4	7 627.6	7 914.9
	exports	4 989.0	4 932.4	5 462.8	5 831.5	5 542.9
		-649.1	-1 097.7	-1 631.6	-1 796.1	-2 371.9
66	Non-metallic mineral products:					
	imports	4 914.1	5 309.4	5 841.2	5 957.1	5 629.9
	exports	3 121.3	3 182.6	3 754.7	3 643.7	3 789.7
		-1 792.8	-2 126.8	-2 086.6	-2 313.4	-1 840.2
67	Iron and steel:					
	imports	3 684.9	3 789.4	4 827.0	5 280.2	4 692.1
	exports	3 301.7	2 461.6	3 191.3	3 535.5	3 157.0
		-383.1	-1 327.8	-1 635.7	-1 744.7	-1 535.0
68	Non-ferrous metals:					
	imports	7 400.4	8 089.7	10 649.1	10 299.8	12 172.7
	exports	6 843.5	6 434.2	8 246.8	9 118.5	9 463.2
		-556.8	-1 655.5	-2 402.4	-1 181.3	-2 709.4
69	Manufactures of metal:					
	imports (b)	367.5	376.9	420.4	504.6	488.5
	exports (b)	334.7	397.6	434.0	422.5	489.3
		-32.8	+20.8	+13.6	-82.2	-0.8
96	Coin other than gold:					
	imports	4.2	4.5	5.4	4.0	5.5
	exports	29.3	9.8	14.9	9.7	9.4
		+25.0	+5.2	+9.5	+5.8	+3.9
	Total (excluding gold)					
	imports	66 411.8	64 082.4	81 562.5	93 400.5	88 378.5
	exports	53 897.0	49 282.2	62 665.6	72 701.8	69 257.2
		-12 514.9	-14 800.2	-18 896.9	-20 698.6	-19 121.2

(a) Imports are valued c i f and exports are valued f o b.

As of 2011 information regarding trade in gold is no longer available.

Approximate value (a) of minerals produced in the United Kingdom 2013–2019

£ million

Mineral	2013	2014	2015	2016	2017	2018	2019
Coal	780	660	419	227	225	198	132
Natural gas	7 755	6 655	7 035	5 315	6 260	6 900	5 530
Natural gas liquids	... (b)	... (b)	... (b)	... (b)	... (b)	... (b)	... (b)
Crude petroleum	21 330	18 185	12 985	12 385	15 545	21 285	21 085
Tin	—	—	—	2	4	4	—
Tungsten	—	—	5	23	31	28	—
Gold	1	—	—	0	—	—	2
Silver	0	—	—	0	—	—	0
Other non-ferrous metals	0	0	0	0	0	0	0
Sand and gravel	584	643	783	859	859	907	934
Limestone and dolomite	545	663	(c) 1 192	(c) 1 421	(c) 1 476	(c) 1 587	(c) 1 592
Igneous rock	320	333					
Sandstone	115	122					
Chalk	77	57					
Clay and shale	41	59	26	26	28	23	23
China clay	129	129	121	121	133	128	107
Ball clay	50	48	47	53	61	63	46
Salt	317	225	177	166	95	109	92
Silica sand	59	55	62	67	82	88	90
Potash	248	226	137	89	45	46	0
Polyhalite	—	—	25	25	63	50	127
Fluorspar	4	4	3	2	1	2	4
Gypsum and anhydrite	8	15	23	19	18	20	22
Miscellaneous minerals	35	70	50	49	43	41	29
Total	32 398	28 149	23 090	20 849	24 969	31 479	29 816
At 2018 constant prices							
Coal	851	707	446	237	230	198	129
Oil and gas	31 718	26 624	21 321	18 457	22 296	28 185	26 068
Metals	1	0	5	26	36	32	2
Construction and industrial minerals	2 761	2 839	2 818	3 021	2 969	3 064	3 004
Total	35 330	30 170	24 590	21 740	25 531	31 479	29 203

(a) Calculated on an ex-works sales basis.

(b) Included in gas and petroleum figures.

(c) Including a BGS estimate for the value of building stone

United Kingdom mining and quarrying: Gross value added (a) 2012–2019

£ million

	2012	2013	2014	2015	2016	2017	2018	2019
Production								
Mining and quarrying								
Mining and quarrying of energy producing materials								
Mining of coal and lignite	415	180	104	136	221	274	190	154
Extraction of crude petroleum and natural gas	21 650	20 298	16 118	9 144	9 229	14 065	18 083	16 912
Other mining and quarrying	1 394	1 498	1 504	1 665	1 662	1 622	1 917	1 971
Total mining and quarrying	25 880	24 343	19 832	13 234	12 352	17 130	21 426	20 276
All industries	1 529 665	1 588 795	1 661 233	1 712 072	1 777 366	1 844 010	1 910 247	1 970 311
of which: minerals related (%)	1.7	1.5	1.2	0.8	0.7	0.9	1.1	1.0

(a) At current basic prices.

Source: Office for National Statistics.

Individual industry sectors do not sum to the total mining and quarrying figure due to the exclusion of mining support service activities.

United Kingdom production of minerals 2013–2019

Thousand tonnes

Mineral	2013	2014	2015	2016	2017	2018	2019
Coal:							
Deep-mined	4 089	3 685	2 784	22	20	24	99
Opencast	8 584	7 962	5 814	4 156	3 021	2 556	2 067
Other (a)	95	—	—	—	—	—	—
Natural gas and oil:							
Methane (oil equivalent)							
Colliery	52	34	30	38	35	33	24
Onshore	10	38	183	179	179	236	366
Offshore	35 268	35 690	38 633	39 659	38 685	38 442	37 381
Crude oil							
Onshore	1 003	1 014	962	966	836	845	832
Offshore	37 453	36 461	41 864	43 339	42 349	46 299	47 911
Condensates and other (b)							
Onshore	20	19	18	17	14	14	63
Offshore	2 170	2 435	2 444	3 122	3 432	3 306	3 011
Non-ferrous ores (metal content):							
Tin	—	—	—	0.2	0.3	0.2	—
Tungsten	—	—	0.2	0.9	1.4	1.2	—
Lead (e)	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Gold (kg)	42	—	—	(d) 6	—	—	50
Silver (kg)	82	—	—	(d) 14	—	—	130
Clay and shale (c)							
Clay (c)	6 464	6 806	4 552	4 694	5 544	4 606	4 529
Igneous rock (f) (g)	(l) 37 700	(l) 41 500	(l) 119 901	126 201	(l) 126 839	130 898	(l) 129 300
Limestone (excluding dolomite)	(l) 54 400	(l) 64 200					
Dolomite (excluding limestone)	3 432	3 730					
Sandstone	11 217	13 614					
Slate (h)	885	868	(e) 760	(e) 780	(e) 820	(e) 820	(e) 160
Sand and gravel:							
Land	43 379	46 832	51 053	51 231	50 143	52 065	(l) 48 700
Marine (i)	14 577	14 327	15 390	16 844	17 402	17 817	18 088
Ball clay (sales) (e)	740	733	740	753	850	867	738
Barytes	30	44	50	56	55	(e) 55	(e) 50
China clay (sales) (j) (e)	1 110	1 090	1 014	940	970	996	715
Fireclay (c)	105	129	...	...	...	...	...
Fluorspar (e)	16	25	17	12	11	11	12
Gypsum (natural) (e)	700	1 100	1 800	1 600	1 300	1 400	1 600
Peat (000 m ³)	1 254	795	...	...	...	...	...
Potash (k)	(e) 540	576	594	432	216	210	—
Polyhalite	—	—	200	200	500	400	635
Salt	6 930	4 690	(e) 4 000	3 899	2 362	3 430	2 254
Silica sand	3 961	3 948	3 822	4 251	5 051	4 890	4 443
Talc	3	5	5	3	3	2	3

(a) Slurry etc. recovered from dumps, ponds, rivers etc.

(b) Including ethane, propane and butane, in addition to condensates.

(c) Excluding a small production in Northern Ireland.

(d) Production from metallurgical testwork.

(e) BGS estimate.

(f) Excluding a small production of granite in Northern Ireland.

(g) In addition, the following amounts of igneous rock were produced in

Guernsey (thousand tonnes): 2013: 149; 2014: 117; 2015: 116; 2016: 88;

2017: 105; 2018: 122; 2019: 111 and Jersey: 2013: 176; 2014: 243; 2015: 275;

2016: 258; 2017: 247; 2018: 265; 2019: 275.

(h) Slate figures include waste used for constructional fill and powder and granules used in industry.

(i) Including marine-dredged landings at foreign ports (exports).

(j) Dry weight.

(k) Marketable product (KCl).

(l) Including an estimate or partial estimate for Northern Ireland.

Sources: Mineral Products Association; Office for National Statistics; Department of Business, Energy & Industrial Strategy; Department for Economy (Northern Ireland); Crown Estate Commissioners; and company data.

England production of minerals 2013–2019

Thousand tonnes

Mineral	2013	2014	2015	2016	2017	2018	2019
Coal:							
Deep-mined	3 998	3 600	2 800	20	20	10	—
Opencast	3 412	2 900	2 200	900	1 000	900	600
Other (a)	...	—	—	—	—	—	—
Natural gas and oil:							
Methane (oil equivalent)							
Colliery	...	...	...	...	...	...	...
Onshore	...	...	...	...	...	...	...
Offshore	...	...	...	...	...	...	...
Crude oil							
Onshore	...	...	...	...	...	...	...
Offshore	...	...	...	...	...	...	...
Condensates and other (b)	...	...	...	...	...	...	...
Non-ferrous ores (metal content):							
Tin	—	—	—	0.2	0.3	0.2	—
Tungsten	—	—	0.2	0.9	1.4	1.2	—
Lead (e)	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Gold (kg)	—	—	—	—	—	—	—
Silver (kg)	—	—	—	—	—	—	—
Clay and shale (c)	6 026	6 671	...	...	...	...	...
Chalk	3 528	3 312					
Igneous rock	17 569	19 156					
Limestone (d)	...	...	(k) 73 044	(k) 77 634	(k) 78 961	(k) 82 296	(k) 80 746
Dolomite (f)	...	...			
Limestone and dolomite	46 423	53 769					
Sandstone	4 318	4 450					
Sand and gravel:							
Land	35 846	38 785	54 063	54 773	54 299	55 481	52 078
Marine (g)	9 854	10 685					
Slate (h)	...	...	...	...	...	...	...
Ball clay (sales) (e)	740	733	740	753	850	867	738
Barytes	2	...	...	...	...	...	...
China clay (sales) (i) (e)	1 110	1 090	1 014	940	970	996	715
Fireclay	98	...	...	...	...	...	...
Fluorspar (e)	16	25	17	12	11	11	12
Gypsum (natural) (e)	700	1 100	1 800	1 600	1 300	1 400	1 600
Peat (000 m ³)	661	294	...	...	...	...	...
Potash (j)	540	576	594	432	216	210	—
Polyhalite	—	—	200	200	500	400	635
Salt	6 601	4 466	...	...	...	...	...
Silica sand	3 620	3 630	...	...	...	4 235	...

(a) Slurry etc. recovered from dumps, ponds, rivers etc.

(b) Including ethane, propane and butane, in addition to condensates.

(c) Including potter's clay.

(d) Including dolomite for constructional uses.

(e) BGS estimate.

(f) Dolomite and magnesian limestone used for constructional and agricultural purposes as well as for refractory, chemical and other purposes specifically dependent on the high magnesium content.

(g) Including marine-dredged landings at foreign ports (exports).

(h) Slate figures include waste used for constructional fill and powder and granules used in industry.

(i) Dry weight.

(j) Marketable product (KCI).

(k) Excluding building stone

Sources: Mineral Products Association; Office for National Statistics; Department of Business, Energy & Industrial Strategy; Crown Estate Commissioners; and company data.

Wales production of minerals 2013–2019

Thousand tonnes

Mineral	2013	2014	2015	2016	2017	2018	2019
Coal:							
Deep-mined	91	40	30	10	0	10	100
Opencast	2 343	2 500	2 300	2 400	1 200	1 000	1 100
Other (a)	...	—	—	—	—	—	—
Natural gas and oil:							
Methane (oil equivalent)							
Colliery	...	...	...	...	...	...	...
Onshore	—	—	—	—	—	—	—
Offshore	...	...	...	...	...	...	...
Crude oil							
Onshore	—	—	—	—	—	—	—
Offshore	...	...	...	...	...	...	...
Condensates and other (b)	...	...	...	...	...	...	...
Non-ferrous ores (metal content):							
Gold	—	—	—	—	—	—	—
Clay and shale	...	...	...	...	...	...	...
Igneous rock	1 905	2 189					
Limestone (c)	...	...			
Dolomite (d)	...	...	(f) 12 503	(f) 12 376	(f) 12 319	(f) 12 711	(f) 12 001
Limestone and dolomite	8 934	11 301					
Sandstone	2 774	2 521					
Sand and gravel:							
Land	673	901	2 076	1 943	1 654	1 517	1 584
Marine	632	647					
Slate (e)	...	...	...	...	...	...	...
Fireclay	—	—	—	—	—	—	—
Silica sand	...	...	...	...	...	—	—

(a) Slurry etc. recovered from dumps, ponds, rivers etc.

(b) Including ethane, propane and butane, in addition to condensates.

(c) Including dolomite for constructional uses.

(d) Dolomite and magnesian limestone used for constructional and agricultural purposes as well as for refractory, chemical and other purposes specifically dependent on the high magnesium content.

(e) Slate figures include waste used for constructional fill and powder and granules used in industry.

(f) Excluding building stone

Sources: Mineral Products Association; Office for National Statistics; Department of Business, Energy & Industrial Strategy; Crown Estate Commissioners; and company data.

Scotland production of minerals 2013–2019

Thousand tonnes

Mineral	2013	2014	2015	2016	2017	2018	2019
Coal:							
Deep-mined	—	—	—	—	—	—	—
Opencast	2 835	2 500	1 300	800	800	600	400
Other (a)	...	—	—	—	—	—	—
Natural gas and oil:							
Methane (oil equivalent)							
Colliery	...	...	...	...	...	...	...
Onshore	—	—	—	—	—	—	—
Offshore	...	...	...	...	...	...	...
Crude oil							
Onshore	—	—	—	—	—	—	—
Offshore	...	...	...	...	...	...	...
Condensates and other (b)	...	...	...	...	...	...	...
Non-ferrous ores (metal content):							
Gold (kg)	—	—	—	(f) 6	—	—	—
Silver (kg)	—	—	—	(f) 14	—	—	—
Clay and shale	...	...	...	...	...	...	...
Igneous rock	15 623	16 939					
Limestone (c)	...	...			
Dolomite (d)	...	...	(g) 22 613	(g) 23 886	(g) 23 190	(g) 22 331	(g) 23 815
Limestone and dolomite	1 269	1 302					
Sandstone	1 591	2 766					
Sand and gravel (land-won)	4 911	5 111	5 670	6 238	5 859	5 599	5 548
Slate (e)	...	...	...	...	...	...	...
Barytes	28	...	...	...	...	...	...
Fireclay	7	...	...	...	...	...	...
Peat (000 m ³)	594	501	...	...	...	...	...
Silica sand	...	...	...	...	...	655	...
Talc	3	5	5	3	3	2	3

(a) Slurry etc. recovered from dumps, ponds, rivers etc.

(b) Including ethane, propane and butane, in addition to condensates.

(c) Including dolomite for constructional uses.

(d) Dolomite and magnesian limestone used for constructional and agricultural purposes as well as for refractory, chemical and other purposes specifically dependent on the high magnesium content.

(e) Slate figures include waste used for constructional fill and powder and granules used in industry.

(f) Production from metallurgical testwork.

(g) Excluding building stone

Sources: Mineral Products Association; Office for National Statistics; Department of Business, Energy & Industrial Strategy; Crown Estate Commissioners; and company data.

Minerals produced in the Northern Ireland, Isle of Man, Guernsey and Jersey 2015-2019

Thousand tonnes

	2015	2016	2017	2018	2019
Northern Ireland (d)					
Gold (kg)	0	0	0	0	(c) 50
Silver (kg)	0	0	0	0	(c) 130
Lead (tonnes)	0	0	0	0	(c) 50
Limestone	1 709	2 146	2 323	3 158	...
Sand and gravel	2 481	2 354	2 606	3 175	...
Basalt and igneous rock (a)	2 587	4 216	3 227	4 164	...
Sandstone	3 946	5 043	3 722	5 339	...
Granite	...	...	...	...	...
Clay and shale	...	...	...	...	...
Others (b)	1 044	1 264	795	1 565	...
Total	11 766	15 023	12 673	17 401	...
Isle of Man					
Limestone	58	50	48	41	54
Sand and gravel	101	106	109	108	92
Igneous rock	94	89	86	86	85
Slate	33	28	39	39	38
Total	286	272	281	274	269
Guernsey					
Igneous rock	116	88	105	122	111
Jersey					
Igneous rock (c)	275	258	247	265	275
Sand and gravel	51	46	47	52	59

(a) Excluding granite.

(b) Including rock salt, chalk, dolomite, fireclay and granite.

(c) BGS estimates.

(d) Data for Northern Ireland is based on the following numbers of mine/quarry returns: 2015, 106; 2016, 116; 2017, 90 and 2018, 114.

No extrapolation for missing returns is included in this table.

Sources: Department for the Economy (Northern Ireland), Department of Environment, Food and Agriculture (Isle of Man), Company data (Guernsey and Jersey).

Number of mineral workings in the United Kingdom, by commodity (a) (b)

Commodity	Region															Number
	North East England	Yorkshire & the Humber	North West England	East Midlands	West Midlands	East of England	Greater London	South East England	South West England	England Total	Wales	Scotland	Isle of Man	Northern Ireland	Channel Islands	Total
Abandoned mine methane	—	6	—	9	2	—	—	—	—	17	1	—	—	—	—	18
Anhydrite	—	—	—	—	1	—	—	—	—	1	—	—	—	—	—	1
Ball clay	—	—	—	—	—	—	—	—	20	20	—	—	—	—	—	20
Barytes	—	—	—	1	—	—	—	—	—	1	—	2	—	—	—	3
Chalk	—	13	—	3	—	11	—	16	1	44	—	—	—	4	—	48
China clay	—	—	—	—	—	—	—	—	18	18	—	—	—	—	—	18
China clay waste	—	—	—	—	—	—	—	—	12	12	1	—	—	—	—	13
Clay & shale	5	23	16	16	22	5	—	21	9	117	10	4	—	13	—	144
Coal, underground	1	—	—	—	—	—	—	—	—	1	2	—	—	—	—	3
Coal, opencast	3	—	—	1	—	—	—	—	—	4	2	1	—	—	—	7
Colliery Spoil	—	—	—	—	—	—	—	1	—	1	1	2	—	—	—	4
Fireclay	—	4	1	1	1	—	—	—	—	7	—	1	—	—	—	8
Flint	—	1	—	—	—	4	—	2	—	7	—	—	—	—	—	7
Fluorspar	1	—	—	2	—	—	—	—	—	3	—	—	—	—	—	3
Gold	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	2
Gypsum (c)	—	—	1	4	1	—	—	1	—	7	—	—	—	—	—	7
Igneous & metamorphic rock	8	—	3	7	4	—	—	—	14	36	17	122	2	43	4	224
Iron ore - ironstone	—	—	—	—	—	—	—	3	—	3	—	—	—	—	—	3
Lead	—	—	—	1	—	—	—	—	—	1	—	—	—	1	—	2
Limestone / dolomite	16	33	17	60	7	3	—	11	86	233	35	14	2	20	—	304
Marble	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1
Natural gas	—	12	1	3	—	—	—	1	1	18	—	—	—	—	—	18
Oil	—	1	—	82	—	—	—	23	4	110	—	—	—	—	—	110
Peat	—	1	4	—	—	—	—	—	38	43	1	19	—	8	—	71
Polyhalite	—	1	—	—	—	—	—	—	—	1	—	—	—	—	—	1
Salt	—	1	3	—	—	—	—	—	—	4	—	—	—	1	—	5
Sand	5	8	7	1	4	15	2	33	12	87	2	24	1	3	1	118
Sand & gravel	10	23	24	39	34	94	30	85	30	369	31	111	1	71	—	583
Sandstone	14	45	35	16	18	3	—	5	21	157	18	50	—	35	—	260
Serpentine	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	1
Silica sand	—	2	6	1	—	9	—	7	1	26	1	5	—	—	—	32
Silver	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Slate	—	—	10	—	—	—	—	—	11	21	14	—	2	1	—	38
Slate waste	—	—	3	—	—	—	—	—	—	3	15	1	—	—	—	19
Talc	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1
Tin	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	1
Total	64	176	131	247	94	144	32	209	280	1 377	151	359	8	202	5	2 102

(a) As at December 2020.

Source: British Geological Survey.

(b) Double counting may occur because some workings produce more than one mineral.

(c) Excludes desulphogypsum manufacture.

Abrasives, natural

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Carats					£ thousand				
Abrasives										
<i>Imports</i>										
Natural abrasives										
Industrial diamonds	2 397 330	2 181 458	2 705 618	5 418 781	3 040 649	9 455	7 725	11 585	11 982	41 067
Tonnes										
Dust and powder of precious and semi-precious stones	100	103	31	45	34	7 469	7 694	10 898	9 233	10 169
Pumice	4 634	8 034	2 699	2 131	1 550	1 126	989	863	717	654
Other	13 422	13 164	11 609	9 123	11 851	2 757	3 038	3 455	2 822	3 533
Carats										
<i>Exports</i>										
Natural abrasives										
Industrial diamonds	943 964	686 369	1 156 793	1 019 188	1 160 545	8 604	7 862	9 719	6 695	8 079
Tonnes										
Dust and powder of precious and semi-precious stones	12	68	15	15	148	9 830	10 801	13 694	11 049	9 983
Pumice	100	254	328	500	304	130	244	301	431	323
Other	1 183	1 555	1 274	1 414	852	1 068	1 008	1 008	839	1 020

Aggregates

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Aggregates										
<i>Production*</i>										
Sand and gravel (a)	66 443 000	68 075 000	67 548 000	69 882 000	(c) 66 800 000					
Crushed rock (b)	119 401 000	125 301 000	125 739 000	129 998 000	(c) 128 200 000					
Total	185 845 000	193 376 000	193 287 000	199 881 000	(c) 194 900 000					
<i>Imports</i>										
Natural aggregates-										
Sand and gravel	722 068	879 166	631 921	488 876	465 526	14 737	17 793	18 704	19 951	25 586
Crushed rock (d)	281 400	433 084	356 707	270 077	209 381	15 788	19 290	18 168	17 231	14 270
Total	1 003 468	1 312 250	988 628	758 953	674 907	30 525	37 082	36 872	37 182	39 856
<i>Exports</i>										
Natural aggregates-										
Sand and gravel (e) (f)	2 223 131	2 445 821	2 409 597	2 841 913	3 257 033	22 694	26 552	26 473	28 994	40 017
Crushed rock	4 251 512	3 815 671	4 353 247	4 419 084	3 464 967	30 156	29 431	35 901	38 266	36 256
Total	6 474 643	6 261 492	6 762 844	7 260 997	6 722 000	52 851	55 984	62 374	67 260	76 273

* 2015-2019 Mineral Products Association

The published production data for Northern Ireland varies according to the number of returns received and in some years this is believed to be too low. Estimates have been added to the figures in this table for 2015 and 2017 to account for missing returns.

- (a) Including production from marine dredging.
 (b) Includes small quantities for other purposes in Northern Ireland.
 (c) Includes an estimate for Northern Ireland.
 (d) For a number of years, a significant amount of armourstone imports were believed to be wrongly classified as 'granite, crude'. Care should be taken when comparing long time trends.

- (e) Principally marine-dredged sand and gravel. Source: HM Revenue and Customs.
 (f) However, the Crown Estate Commissioners give the following figures for marine-dredged sand and gravel landed at foreign ports (tonnes): 2015: 2 153 146; 2016: 2 767 125; 2017: 3 127 371; 2018: 4 110 142 and 2019: 4 672 369.

Aluminium

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Aluminium										
<i>Production</i>										
Unwrought-										
Primary	47 000	46 000	48 000	44 400	39 400					
Secondary (a)	148 800	148 800	148 800	148 800	148 800					
<i>Consumption</i>										
Unwrought-										
Primary (a)	270 000	241 200	241 200	180 000	180 000					
Secondary (a)	320 400	320 400	320 400	148 800	148 800					
<i>Imports</i>										
Ash and residues	435	1 163	218	850	995	490	263	244	700	783
Unwrought	145 297	162 946	162 676	183 402	161 909	173 276	196 694	265 288	316 091	255 085
Unwrought alloys	68 646	71 127	72 035	68 304	(a) 68 000	102 809	102 918	128 121	127 711 (a)	123 495
Scrap	113 549	113 780	135 710	124 866	100 274	104 570	97 151	123 991	135 632	97 739
<i>Exports</i>										
Ash and residues	75	465	222	1 000	2 462	345	328	292	1 449	763
Unwrought	3 164	3 326	4 614	8 567	2 658	5 200	4 846	8 609	18 677	4 651
Unwrought alloys	278 215	287 882	270 009	262 847	(a) 249 400	405 567	412 070	470 822	481 954 (a)	400 900
Scrap	405 504	437 637	370 082	444 339	477 842	404 838	424 272	439 567	499 753	462 025

(a) Estimate.

Aluminium compounds

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Aluminium compounds										
<i>Imports</i>										
Oxide (alumina)	58 619	153 964	140 836	116 257	126 979	32 620	41 642	112 740	103 102	64 364
Hydroxide	46 081	51 957	51 690	60 463	95 714	20 829	23 023	26 481	25 584	31 542
Fused Oxide (a)	29 713	27 178	30 185	32 971	28 625	16 960	15 668	17 586	22 689	20 131
Fluorides	389	953	736	854	823	271	734	637	828	1 169
<i>Exports</i>										
Oxide (alumina)	4 953	9 706	3 365	3 824	4 156	2 835	3 796	3 200	3 441	3 741
Hydroxide (b)	5 500	3 100	800	2 500	3 500	3 600	1 500	900	1 700	1 700
Fused Oxide (a)	6 670	7 567	10 427	13 911	13 469	5 055	6 471	7 489	10 255	10 236
Fluorides	298	0	0	67	225	245	4	9	72	136

(a) Artificial corundum.

(b) BGS estimates, based on known imports into certain countries.

Antimony

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Antimony										
<i>Imports</i>										
Ores & concentrates	—	—	1	—	—	—	—	6	1	—
Metal	128	307	189	259	290	979	1 491	1 714	1 967	2 275
Oxide	1 912	1 628	1 690	1 759	2 468	7 496	7 671	9 978	10 104	7 555
<i>Exports</i>										
Ores & concentrates	52	1	—	—	—	70	4	—	—	—
Metal	431	477	660	537	521	3 345	3 792	5 688	5 572	5 169
Oxide	180	209	78	89	151	843	981	574	583	1 078

Arsenic

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Arsenic										
<i>Imports</i>										
Elemental	6	4	3	3	5	207	268	289	445	282
<i>Exports</i>										
Elemental	5	3	2	1	4	50	16	21	20	28

Asbestos

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Asbestos										
<i>Imports</i>										
Fabricated asbestos	11	17	2	21	2	122	239	75	733	76
Friction material with a basis of asbestos etc.	5 778	5 622	5 971	6 908	6 910	50 095	45 239	43 015	42 202	35 833
Articles of asbestos cement etc.	163 162	172 991	189 683	189 178	204 437	62 922	70 850	80 820	78 153	86 157
<i>Exports</i>										
Fabricated asbestos	12	165	119	57	157	1 112	2 055	918	2 161	1 758
Friction material with a basis of asbestos etc.	3 495	2 471	2 384	2 713	1 837	51 218	50 185	72 960	58 410	27 199
Articles of asbestos cement etc.	14 121	21 419	19 260	15 229	18 260	6 564	10 210	11 111	8 674	11 415

Asphalt, natural

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Asphalt, natural										
<i>Imports</i>	26 765	33 394	27 354	22 628	72 253	4 906	4 335	6 236	4 529	4 040
<i>Exports</i>	70 584	48 224	47 063	47 147	41 974	2 384	1 862	2 054	2 418	3 371

Ball clay

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Ball clay										
<i>Production (sales) (a)</i>	740 000	753 000	850 000	867 000	738 000					
<i>Imports</i>	7 390	3 580	4 534	4 588	3 247	2 331	1 545	1 990	1 821	1 437
<i>Exports</i>	560 370	570 678	643 779	656 940	558 961	35 701	40 449	46 483	48 050	44 850

(a) BGS estimates

Barytes

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Barytes										
<i>Production</i>										
Barium minerals - Barytes (a)	50 000	56 000	55 000	55 000	50 000					
<i>Imports</i>										
Barium minerals (b)	61 136	44 363	41 245	58 753	63 552	8 414	8 464	9 142	12 957	12 120
<i>Exports</i>										
Barium minerals (b)	12 738	13 089	17 572	14 284	13 205	4 185	3 910	5 305	4 781	4 448

(a) BGS estimate

(b) Mainly barytes with some witherite.

Bauxite

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Bauxite										
<i>Imports (a)</i>	35 850	19 808	14 029	33 816	44 135	10 155	6 156	5 459	10 434	12 802
<i>Exports (a)</i>	3 455	4 879	4 495	5 184	5 122	3 252	1 968	1 824	2 490	2 621

(a) Excluding refractory grade bauxite.

Bentonite

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Bentonite										
<i>Imports</i>	120 841	122 153	128 865	142 665	121 451	10 513	12 366	13 396	14 806	16 443
<i>Exports</i>	28 938	28 856	31 921	30 501	27 527	8 939	9 701	15 119	21 262	21 216

Beryllium

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Beryllium										
<i>Imports</i>										
Metal	7	33	72	50	9	1 042	1 243	2 180	2 177	2 386
Oxides and hydroxides	4	3	8	13	4	610	395	1 275	1 152	1 092
<i>Exports</i>										
Metal	5	3	39	39	9	303	300	959	1 180	272
Oxides and hydroxides	—	0	3	—	2	—	1	55	—	46

Bismuth

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Bismuth										
<i>Imports</i>										
Metal	259	161	53	82	139	2 397	1 128	555	706	679
<i>Exports</i>										
Metal	444	634	210	26	22	6 887	6 869	3 872	673	610

Boron

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Boron										
<i>Imports</i>										
Boron minerals (a)	3 975	4 363	4 322	5 314	4 234	952	1 197	1 289	1 608	1 309
<i>Exports</i>										
Boron minerals (a)	4	111	459	393	504	7	89	425	401	540

(a) Including crude natural borates and concentrates, and crude natural boric acid.

Bricks, blocks and tiles

Great Britain production of bricks, blocks and tiles 2011–2019

Material	2011	2012	2013	2014	2015	2016	2017	2018	2019
Million bricks									
Bricks (all types):	1 554	1 459	1 555	1 824	1 915	1 800	1 877	2 025	2 002
Million square metres									
Concrete building blocks:									
Dense aggregate	23	22	24	25	26	27	27	26	25
Lightweight aggregate	15	14	17	17	19	20	22	21	21
Aerated concrete	16	16	15	15	20	23	25	23	28
Total	55	52	56	58	65	71	74	71	74
Roofing tiles:									
Concrete	18	17	19	24	25	25	26	27	26

Source: Department for Business Energy and Industrial Strategy

Bromine

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Bromine										
<i>Imports</i>	5 271	6 557	6 634	6 321	5 095	6 788	10 970	10 707	9 419	8 027
<i>Exports</i>	161	1 268	3 202	3 103	1 095	399	2 166	3 841	4 505	2 435

Building and dimension stone

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Building and dimension stone										
<i>Production</i>										
Sandstone	...	...	...	...	...
Igneous rock	...	...	...	...	...
Limestone	...	...	...	...	...
Dolomite	...	...	...	...	...
Total (a)	500 000	900 000	1 100 000	900 000	1 100 000					
<i>Imports</i>										
<i>Unworked-</i>										
Marble & other calcareous stone	9 006	15 981	30 167	33 351	35 478	6 084	8 190	11 745	15 895	11 865
Granite (b)	2 744 898	3 068 883	2 363 599	2 953 475	3 197 438	54 355	53 843	47 786	57 095	63 284
Sandstone	359 374	442 582	398 535	421 809	421 279	66 376	68 210	88 930	87 896	87 513
Other stone	77 319	60 874	109 927	243 198	151 549	15 303	11 803	13 811	11 817	10 833
<i>Worked-</i>										
Marble & other calcareous stone	67 020	62 073	55 704	46 885	55 830	44 916	46 773	49 320	41 948	59 458
Granite	93 690	95 086	91 188	73 114	69 443	66 545	68 240	67 780	55 251	54 037
Other stone	23 622	24 527	23 991	22 516	25 961	18 221	22 465	24 270	22 471	29 027
Paving stones and flagstones	221 917	227 864	272 669	278 317	313 922	44 025	47 052	64 286	64 648	74 254
<i>Exports</i>										
<i>Unworked-</i>										
Marble & other calcareous stone	437	578	834	1 219	1 265	294	413	465	836	1 225
Granite	5 961	7 547	13 915	12 705	11 536	674	1 154	2 172	2 361	1 913
Sandstone	9	299	206	669	1 014	15	94	73	289	638
Other stone	499	255	208	646	731	617	262	225	405	366
<i>Worked-</i>										
Marble & other calcareous stone	1 428	896	809	831	1 150	7 201	3 155	3 417	4 246	4 666
Granite	3 505	660	1 059	849	689	5 332	1 214	1 698	1 196	1 330
Other stone	2 081	2 477	6 935	3 089	2 071	4 092	1 738	2 511	1 508	4 968
Paving stones and flagstones	4 532	3 417	3 687	4 992	4 231	1 568	1 460	1 377	1 243	1 223

(a) BGS estimates.

(b) Figures in some years believed to be too high. May include aggregates.

Cadmium

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Cadmium										
<i>Consumption</i>	10	10	10	10	10					
<i>Imports</i>										
Metal	216	224	252	221	247	237	280	417	557	611
Oxide	120	72	96	122	0	122	133	199	316	4
<i>Exports</i>										
Metal	12	7	15	8	66	166	85	172	155	240

Cement

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Cement										
<i>Production</i>										
Cement, clinker	7 804 000	8 056 000	7 824 000	7 734 000	7 830 000					
Cement, finished	9 235 000	9 370 000	9 359 000	9 197 000	9 079 000					
<i>Cubic metres</i>										
Ready-mixed concrete	25 456 000	26 575 000	26 063 000	25 693 000	24 701 000					
<i>Tonnes</i>										
<i>Consumption (home deliveries)</i>										
Finished cement (a)	13 967 000	15 004 000	15 269 000	15 188 000	15 218 000					
<i>Imports</i>										
Portland cement clinkers	743 671	527 391	532 977	828 093	543 316	43 218	43 707	48 267	51 307	37 736
Portland cement	2 181 195	2 338 637	2 422 996	2 464 886	2 879 196	115 597	128 063	139 185	141 827	172 577
Aluminous cement	14 360	15 105	12 802	14 568	18 652	4 517	4 449	4 174	4 691	7 162
Other cement	23 133	29 470	34 677	37 993	33 569	1 894	3 438	2 697	2 942	2 830
<i>Exports</i>										
Portland cement clinkers	6 899	47 928	23 649	12 106	8 746	1 308	3 029	1 540	915	733
Portland cement	67 218	93 513	138 181	178 307	150 056	10 276	11 278	15 680	17 427	14 879
Aluminous cement	59 833	58 218	62 746	72 604	62 589	24 931	26 821	30 628	34 471	31 639
Other cement	3 522	2 680	5 591	3 291	2 136	1 532	1 183	2 475	1 942	1 652

(a) Great Britain only.

Chalk (see Limestone)

China clay

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
China clay										
<i>Production (sales) (a)</i>	1 014 000	940 000	970 000	996 000	715 000					
<i>Imports (b)</i>	76 443	74 357	68 664	86 805	62 837	12 498	14 148	15 752	17 465	15 718
<i>Exports (b)</i>	913 371	846 617	873 633	897 498	643 940	108 488	109 226	119 421	124 057	110 406

(a) BGS estimate.

(b) Excludes HS code 2507 00 80 'Other kaolinitic clays' which are shown in this volume under Ball clay.

China stone (see Feldspar)

Chromium

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Chromium										
<i>Apparent consumption (a)</i>	30 700	27 000	36 500	38 800	31 700					
<i>Imports</i>										
Ores & concentrates	5 100	5 092	5 460	7 149	7 529	1 378	1 285	1 740	2 903	2 721
Ferro-chrome										
Under 4% carbon	7 005	5 232	7 005	5 744	8 643	13 135	10 468	13 135	14 204	19 915
4%-6% carbon	100	37	100	23	118	192	52	192	4	157
Over 6% carbon	34 504	31 674	34 504	48 375	35 633	23 450	21 351	23 450	51 251	33 417
Ferro-silico-chrome	402	47	12	1	18	612	82	55	12	34
Oxides and hydroxides	15 267	13 833	14 915	15 570	15 458	30 782	30 237	39 143	48 462	40 210
Metal	1 608	1 422	1 227	1 688	1 399	8 617	9 254	9 311	14 759	10 851
<i>Exports</i>										
Ores & concentrates	83	106	71	86	864	16	54	124	107	403
Ferro-chrome										
Under 4% carbon	272	220	272	506	487	1 341	1 163	1 341	2 668	2 886
4%-6% carbon	681	281	681	191	271	416	107	416	192	374
Over 6% carbon	2 169	1 653	2 169	2 428	1 860	2 623	2 262	2 623	4 464	2 984
Ferro-silico-chrome	474	114	545	89	43	1 154	278	1 269	242	162
Oxides and hydroxides	1 161	526	467	276	193	2 855	1 458	1 582	884	843
Metal	6 416	6 933	7 153	7 384	8 439	48 005	50 756	63 391	81 265	77 481

(a) BGS estimates; see explanatory notes.

Clays

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Clays										
<i>Production</i>										
Clay and shale	4 551 900	4 693 900	5 543 900	4 606 000	4 529 000					
<i>Imports</i>										
Unspecified clays	158 222	139 925	147 165	144 947	116 176	21 590	21 587	24 266	24 504	18 995
<i>Exports</i>										
Unspecified clays	131 067	114 027	98 227	84 939	75 148	8 717	8 913	9 534	10 378	9 641

Source: British Ceramic Confederation

Great Britain production of clay and shale by end-use 2004–2019

Thousand tonnes

Year	Bricks, pipes and tiles	Cement	Lightweight aggregate	Constructional use	Other uses	Total
2004	7 629	...	—	...	234	11 164
2005	7 741	1 937	—	798	422	10 898
2006	6 772	...	—	...	...	10 432
2007	6 869	2 348	—	785	102	10 104
2008	4 969	2 013	—	1 318	159	8 459
2009	2 797	1 397	—	998	118	5 310
2010	...	1 353	—	769	...	5 934
2011	3 983	1 474	—	561	136	6 154
2012	3 569	1 415	—	491	23	5 497
2013	4 088	1 440	—	839	97	6 464
2014	4 712	1 453	—	570	71	6 806
2015 (a)	4 380	163	—	9	...	4 552
2016 (a)	4 371	156	—	167	...	4 694
2017 (a)	5 215	173	—	156	...	5 544
2018 (a)	4 341	149	—	116	...	4 606
2019 (a)	4 529	—	—	—	...	4 529

(a) A different source has been used for 2015 onwards and consequently the data may not be complete or consistent with earlier years.

Source: British Ceramic Confederation and Office for National Statistics.

Coal

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Coal										
<i>Production</i>										
Bituminous (a)	8 598 000	4 178 000	3 041 000	2 580 000	2 166 000					
<i>Consumption</i>										
	37 451 000	18 035 000	14 439 000	11 929 000	7 963 000					
<i>Imports</i>										
Anthracite	22 069	32 108	32 416	153 587	73 287	4 538	4 140	6 042	18 620	11 612
Bituminous & Other	21 507 833	7 437 409	7 300 751	9 158 720	5 366 022	1 121 749	467 974	708 280	918 883	566 732
Total	21 529 902	7 469 517	7 333 167	9 312 307	5 439 309	1 126 287	472 114	714 322	937 503	578 344
Briquettes of Coal	9 666	24 130	56 251	32 513	16 716	1 000	3 188	7 706	4 714	2 352
Lignite (including agglomerated)	1 710	3 367	1 705	1 640	1 028	752	1 122	355	410	385
<i>Exports</i>										
Anthracite	77 292	82 512	88 637	105 285	(b) 114 300	9 616	9 004	10 207	15 975	(b) 17 910
Bituminous & Other	275 364	327 687	374 174	495 995	771 846	33 517	37 119	44 465	65 915	85 728
Total	352 656	410 199	462 811	601 280	886 146	43 133	46 123	54 672	81 890	103 638
Briquettes of Coal	73 768	56 053	34 185	35 282	30 140	12 943	8 897	6 012	6 378	5 503
Lignite (including agglomerated)	816	636	414	366	595	416	358	149	72	151

(a) Including anthracite.

(b) BGS estimate.

Cobalt

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Cobalt										
<i>Apparent consumption (a)(b)</i>	1 200	2 200	1 500	200	1 600					
<i>Imports</i>										
Ore	127	83	34	24	42	307	145	106	105	176
Unwrought	3 118	4 691	5 114	4 293	3 881	36 519	39 074	89 464	145 115	89 037
Wrought	2 222	671	505	627	588	13 829	14 842	15 586	24 423	27 929
Oxides	129	264	166	117	128	1 660	2 261	4 043	5 199	2 978
Scrap	391	527	1 115	1 262	931	3 301	4 096	13 216	21 651	10 663
<i>Exports</i>										
Ore	9	8	16	9	68	170	180	690	307	310
Unwrought	851	991	787	1 451	1 243	18 852	19 577	30 007	39 502	38 117
Wrought	584	923	1 011	984	1 045	20 622	27 484	38 045	46 103	65 077
Oxides	1 153	1 257	1 241	878	888	16 608	17 940	35 586	38 190	22 650
Scrap	558	589	1 135	1 535	983	6 419	6 040	14 314	29 743	15 137

(a) Metal content.

(b) BGS estimates; see explanatory notes.

Coke and breeze

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Coke and breeze										
<i>Production</i>										
Coke oven - coke	2 716 000	1 332 000	1 361 000	1 263 000	1 295 000					
Coke oven - breeze	18 000	16 000	18 000	17 000	19 000					
<i>Consumption</i>										
Coke oven coke	2 853 000	1 872 000	1 764 000	1 554 000	1 705 000					
Breeze	962 000	584 000	549 000	592 000	613 000					
<i>Imports</i>										
Coke from coal	52 391	44 584	41 871	115 562	162 016	8 780	7 995	10 099	31 264	56 169
Coke from lignite	10 956	73 713	2 269	174	151	1 615	7 751	1 335	119	97
<i>Exports</i>										
Coke from coal	129 207	227 117	24 892	96 321	81 865	15 752	20 855	5 407	31 543	28 058
Coke from lignite	133	46	15	0	—	77	34	19	1	—

Copper

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Copper										
<i>Consumption</i>										
Unwrought-										
Refined	23 026	21 895	19 032	18 000	18 000					
Copper in scrap for direct use (a)	120 000	120 000	120 000	120 000	120 000					
<i>Imports</i>										
Ores & concentrates	76	0	37	392	112	93	57	161	953	246
Matte & cement	41	59	28	48	47	109	307	155	234	236
Scrap	27 083	34 681	32 075	28 199	24 011	62 952	85 786	92 942	85 525	63 858
Ash and residues	209	134	16	51	133	221	159	27	53	48
Unwrought-										
Unrefined	435	36	35	52	33	671	206	240	406	237
Refined	22 747	62 043	21 613	25 091	21 685	84 650	195 284	100 234	122 222	102 540
Alloys	5 218	4 468	5 218	2 591	1 935	16 002	20 030	16 002	15 117	11 934
Master Alloys	362	290	362	502	439	1 600	1 286	1 600	3 103	2 414
<i>Exports</i>										
Ores & concentrates	778	146	331	2 442	291	2 366	495	1 432	10 386	1 394
Matte & cement	141	116	1 069	350	4 329	551	428	4 627	2 177	17 509
Scrap	263 655	309 613	284 990	261 560	341 124	592 150	677 228	782 594	756 078	787 325
Ash and residues	206	453	2 219	4 924	3 196	366	1 005	8 444	13 977	10 185
Unwrought-										
Unrefined	212	209	221	215	302	3 416	3 592	4 323	3 890	4 354
Refined	601	28 474	20 779	13 043	2 373	2 713	115 782	103 507	69 582	9 950
Alloys	4 615	4 026	7 476	5 303	2 550	18 217	12 316	17 720	15 009	7 765
Master Alloys	6 578	5 150	5 314	5 742	5 289	24 396	17 117	23 159	26 140	23 516

(a) Estimate.

Crushed rock (see also Aggregates)

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Crushed rock										
Production* (a)	119 401 000	125 301 000	125 739 000	129 998 000	(b) 128 200 000					
Imports (c)	281 400 433 084		356 707	270 077	209 381	15 788	19 290	18 168	17 231	14 270
Exports	4 251 512	3 815 671	4 353 247	4 419 084	3 464 967	30 156	29 431	35 901	38 266	36 256

* Source: Mineral Products Association

The published production data for Northern Ireland varies according to the number of returns received and in some years this is believed to be too low. Estimates have been added to the figures in this table for 2015 and 2017 to account for missing returns.

(a) Includes small quantities for other purposes in Northern Ireland.

(b) Includes an estimate for Northern Ireland.

(c) For a number of years a significant amount of armourstone imports are believed to be wrongly classified as 'granite, crude'. Care should be taken when comparing long time trends.

Great Britain production of crushed rock by region 1985–2019

Thousand tonnes

Year	North East (a)	North West (b)	Yorks. & the Humber	West Midlands	East Midlands	East of England (c)	South East (d)	South West	England	Wales	Scotland	Great Britain
1985	9 823	5 330	9 444	8 589	21 429	674	1 404	26 510	83 203	17 423	14 370	114 995
1986	9 861	5 469	11 201	8 780	23 038	500	1 597	29 194	89 640	17 881	14 844	122 365
1987	10 375	5 328	15 407	10 015	26 355	772	1 601	34 443	104 296	20 950	16 990	142 237
1988	11 453	6 849	14 885	12 519	32 026	853	2 589	39 108	120 283	23 102	17 629	161 014
1989	13 497	7 078	16 895	12 519	32 646	611	3 254	37 589	124 088	23 581	21 125	168 794
1990	14 602	7 533	15 449	11 047	34 143	709	1 320	33 073	117 875	22 646	21 094	161 615
1991	13 378	6 320	14 269	10 009	29 862	676	1 625	28 037	104 177	22 123	21 707	148 007
1992	12 669	5 899	12 812	8 783	29 879	...	...	28 564	100 553	21 482	21 932	143 967
1993	12 724	6 748	12 734	8 225	31 522	625	1 168	29 848	103 595	23 237	22 743	149 576
1994	13 365	7 892	15 576	8 839	33 713	1 705	1 433	32 141	114 665	24 346	22 746	161 757
1995	10 930	8 077	15 664	...	31 881	629	...	27 419	103 475	23 139	24 224	150 838
1996	10 385	6 448	12 350	6 514	29 001	595	1 210	22 940	89 444	21 273	22 177	132 894
1997	10 619	7 086	12 484	6 416	29 925	536	1 352	23 117	91 535	20 585	21 667	133 787
1998	10 246	6 348	13 745	6 028	26 933	607	1 358	23 411	88 675	19 903	23 138	131 716
1999	9 298	5 829	11 689	5 996	30 724	575	1 343	23 183	88 637	20 429	23 531	132 598
2000	5 441	10 381	11 748	5 533	28 679	475	1 624	24 146	88 027	19 044	23 236	130 307
2001	6 338	9 601	11 718	5 688	30 780	452	1 984	28 067	94 630	17 765	21 364	133 759
2002	5 390	9 426	11 620	5 835	29 604	372	1 068	24 332	87 647	16 724	22 198	126 568
2003	6 081	8 887	10 652	5 538	28 443	(e) 350	(e) 1 008	22 998	83 957	16 837	22 092	122 885
2004	6 455	9 182	11 457	4 861	28 445	423	1 351	23 479	85 653	16 528	25 494	127 674
2005	5 333	7 993	10 875	4 416	27 468	238	1 090	23 180	80 593	16 535	24 732	121 860
2006	5 352	8 996	10 811	4 824	29 658	496	1 059	22 526	83 722	18 429	24 744	126 895
2007	5 482	9 351	10 834	4 750	28 530	591	1 011	22 374	82 922	18 487	28 168	129 577
2008	4 928	7 962	10 045	3 850	24 328	683	1 029	22 355	75 179	15 685	24 215	115 079
2009	3 194	5 629	6 868	2 808	21 575	(e) 289	1 085	18 218	59 666	10 542	20 895	91 103
2010	3 354	4 329	6 681	2 927	17 036	274	800	14 715	50 115	11 001	21 193	82 309
2011	3 400	...	...	...	20 670	...	...	...	57 744	12 034	21 151	90 928
2012	...	...	...	...	...	...	...	...	52 980	10 901	19 004	82 885
2013	2 763	...	...	...	18 647	...	...	16 538	53 417	11 706	17 310	82 433
2014	...	...	...	...	...	...	...	...	63 835	14 830	19 759	98 423
2015	4 678	6 299	10 449	3 699	24 097	—	1 364	22 459	73 044	12 503	22 613	108 160
2016	5 239	6 224	11 140	4 094	26 508	—	5	24 425	77 634	12 376	23 886	113 897
2017	5 084	5 357	10 949	4 419	27 206	—	51	25 895	78 961	12 319	23 190	114 469
2018	5 772	6 203	11 571	4 693	27 083	—	—	26 975	82 296	12 711	22 331	117 338
2019	5 348	5 725	11 467	4 664	26 507	—	—	27 035	80 746	12 001	23 815	116 562

(a) From 2000, excludes Cumbria.

(b) From 2000, includes Cumbria.

(c) From 2000, includes Essex, Hertfordshire and Bedfordshire.

(d) From 2000, excludes Essex, Hertfordshire and Bedfordshire.

(e) BGS estimate.

Sources: For years to 2014: Office for National Statistics.

For years from 2015: GB industry via trade association.

Diamond

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Carats					£ thousand				
Diamond										
<i>Imports</i>										
Unsorted	17 328 419	18 126 079	21 689 101	20 338 927	16 432 540	441 507	480 845	589 370	551 666	442 201
<i>Gem-</i>										
Rough	229 247	1 603 129	8 848 292	10 125 262	4 050 858	31 747	346 358	577 414	599 550	101 433
Cut	342 389	298 987	305 845	663 678	632 568	1 061 796	773 858	680 413	867 945	845 889
Industrial	2 397 330	2 181 458	2 705 618	5 418 781	3 040 649	9 455	7 725	11 585	11 982	41 067
Dust	19 117 231	21 960 382	28 874 346	25 771 437	29 619 970	7 196	7 539	10 559	8 806	10 103
<i>Exports</i>										
Unsorted	17 027 561	18 105 603	29 614 238	27 062 547	16 369 776	433 772	476 592	1 115 508	948 380	442 800
<i>Gem-</i>										
Rough	127 790	241 586	445 121	272 713	309 700	21 555	243 698	50 147	40 109	47 278
Cut	178 953	148 331	423 553	170 873	267 847	913 861	614 440	548 485	547 734	1 012 823
Industrial	943 964	686 369	1 156 793	1 019 188	1 160 545	8 604	7 862	9 719	6 695	8 079
Dust	16 835 755	24 983 180	29 947 667	28 474 520	20 891 380	9 290	10 237	13 265	10 905	9 740

Diatomite

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Diatomite										
<i>Imports (a)</i>										
	12 011	16 155	15 022	19 288	11 649	2 817	4 049	4 369	4 853	3 877
<i>Exports (a)</i>										
	456	655	542	619	315	458	602	421	476	370

(a) Officially recorded under the heading 'Siliceous fossil meals and similar siliceous earths'. Excludes flux calcined.

Dolomite (see Limestone)

Feldspar

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Feldspar										
<i>Imports</i>										
Feldspar	5 602	3 722	8 443	7 679	9 461	972	957	1 314	1 512	1 447
Nepheline-syenite	35 009	34 477	38 645	36 122	28 872	3 032	3 117	3 491	3 474	3 018
<i>Exports</i>										
Feldspar	77	85	85	160	71	34	32	25	70	36
Nepheline-syenite	313	513	537	567	446	128	130	113	150	99

Fireclay

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Fireclay										
<i>Production</i>	...	...	...	...	...
<i>Imports</i>										
Fireclay	2 394	2 603	6 275	4 970	6 718	802	815	1 998	1 664	2 465
Fireclay bricks etc	3 972	1 548	3 517	2 192	1 621	1 945	1 064	3 345	1 853	2 133
Refractory hollow-ware	1 653	1 499	1 200	1 140	1 045	5 068	4 575	3 861	3 489	3 555
<i>Exports</i>										
Fireclay	990	1 140	1 203	1 415	1 516	623	723	806	967	1 008
Fireclay bricks etc	2 459	3 818	3 836	2 711	2 177	2 458	5 641	5 376	3 014	2 937
Refractory hollow-ware	727	575	564	525	521	13 889	13 117	14 185	15 629	15 480

(a) Great Britain only. There is a small, undisclosed production in Northern Ireland.

Fluorspar

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Fluorspar										
<i>Production (a)</i>	12 000	12 000	11 000	11 000	12 000					
<i>Imports</i>	(b) 2 900	(b) 18 400	3 363	3 705	2 718	(b) 500	(b) 2 400	441	574	977
<i>Exports</i>	17 088	11 604	10 809	10 535	14 434	5 215	2 481	2 241	3 876	5 514

(a) Estimates

(b) BGS estimates, based on known exports from certain countries.

Gas, natural (see Petroleum)

Germanium

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Germanium										
<i>Imports</i>										
Metal	0	0	1	0	4	168	89	141	100	407
<i>Exports</i>										
Metal	11	31	14	12	9	368	166	156	203	157

Gold

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Gold										
<i>Production</i>	—	(a) 0	—	—	(b) 0					
<i>Imports</i>										
Waste & scrap	172	190	214	308	428	18 385	22 584	28 532	21 833	49 992
Unwrought (b)	3	3	3	4	1	63 869	76 704	102 801	130 115	42 001
Semi-manufactured	490	1 450	835	625	1 526	12 169 683	42 797 688	26 650 976	19 020 357	55 351 947
<i>Exports</i>										
Waste & scrap	250	407	528	532	658	98 208	342 237	337 404	348 607	450 731
Unwrought (c)	1	2	2	1	1	10 514	2 738	61 021	14 903	22 562
Semi-manufactured	1 066	404	423	788	531	25 190 007	11 502 820	13 140 230	23 768 398	18 236 861

(a) Small quantities have been produced as follows: 2016: 6 kilograms during metallurgical test work in Scotland.

(b) BGS estimates

(c) Mainly refined gold bullion in the form accepted in inter-bank transactions.

Granite (see Igneous rock)

Graphite

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Graphite										
<i>Imports</i>										
Natural graphite	3 451	2 667	3 815	5 357	4 494	2 778	2 436	3 432	4 161	4 058
Artificial graphite	24 088	8 819	10 019	10 583	9 584	17 274	12 349	17 703	24 737	15 997
Graphite crucibles etc	152	148	158	214	290	1 016	1 009	1 145	1 593	2 025
<i>Exports</i>										
Natural graphite	1 762	1 592	1 851	1 687	1 536	2 784	3 210	3 055	2 909	2 669
Artificial graphite	5 864	100 515	30 200	6 569	7 796	13 279	17 258	15 344	11 751	12 705
Graphite crucibles etc	5 563	4 547	5 552	6 390	5 159	12 880	9 972	12 238	15 825	13 252

Gypsum

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Gypsum										
<i>Production</i>										
Gypsum, natural (a)	1 800 000	1 600 000	1 300 000	1 400 000	1 600 000					
<i>Imports</i>										
Gypsum	730 856	1 591 274	1 523 565	1 506 933	2 116 960	9 143	19 715	20 659	20 644	30 036
Gypsum (plasters)	26 660	96 760	820 059	814 303	342 758	7 405	11 015	21 973	24 371	19 848
<i>Exports</i>										
Gypsum	5 609	4 619	9 202	13 692	5 401	1 609	1 399	2 042	2 560	2 174
Gypsum (plasters)	20 146	20 575	26 365	32 011	31 711	7 607	8 849	11 998	14 547	14 642

(a) BGS Estimates.

Hafnium

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Hafnium										
<i>Imports</i>										
	6	18	22	13	17	1 817	5 414	8 194	4 275	7 985
<i>Exports</i>										
	12	28	93	6	10	957	1 309	1 362	2 510	2 424

Igneous rock

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Igneous rock – see also Building and dimension stone										
<i>Production</i>										
					
<i>Imports</i>										
Granite-										
Worked	93 690	95 086	91 188	73 114	69 443	66 545	68 240	67 780	55 251	54 037
Unworked	2 744 898	3 068 883	2 363 599	2 953 475	3 197 438	54 355	53 843	47 786	57 095	63 284
<i>Exports</i>										
Granite-										
Worked	3 505	660	1 059	849	689	5 332	1 214	1 698	1 196	1 330
Unworked	5 961	7 547	13 915	12 705	11 536	674	1 154	2 172	2 361	1 913

Insulating materials

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Insulating materials										
<i>Imports</i>										
Mineral wools (a)	14 368	19 107	28 160	32 361	31 615	29 675	31 506	34 665	39 333	37 497
Expanded minerals (b)	17 039	20 425	35 349	60 215	65 908	8 138	8 188	8 530	10 740	13 880
Other (c)	44 921	43 086	48 851	46 511	37 172	54 432	56 685	73 990	76 539	72 975
<i>Exports</i>										
Mineral wools (a)	38 347	32 853	47 246	58 046	66 518	72 959	81 831	75 722	83 037	101 804
Expanded minerals (b)	13 265	13 801	12 608	13 666	12 468	22 562	22 129	21 602	24 146	26 434
Other (c)	40 311	28 571	30 491	31 984	30 888	53 000	54 712	88 304	86 113	79 682

(a) Slag wool, rock wool and similar mineral wools.

(b) Exfoliated vermiculite, expanded clays, foaming slag and similar expanded mineral materials.

(c) Mixtures and articles of heat-insulating, sound-insulating or sound-absorbing mineral materials.

Iodine

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Iodine										
<i>Imports</i>										
	743	600	938	1 005	847	13 564	9 870	14 623	17 910	18 864
<i>Exports</i>										
	114	205	241	206	226	1 718	3 300	3 544	3 271	4 455

Iron compounds and earth colours

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Iron compounds and earth colours										
<i>Imports</i>										
Earth colours containing 70% or more ferric oxide	488	596	72	27	1	354	374	26	23	7
Other iron compounds-Oxides and hydroxides	32 481	29 590	30 056	30 334	33 133	28 108	26 528	27 190	27 437	27 778
<i>Exports</i>										
Earth colours containing 70% or more ferric oxide	170	50	80	60	38	167	113	136	84	77
Other iron compounds-Oxides and hydroxides	4 974	4 758	5 693	5 919	5 580	7 436	8 253	10 768	10 793	9 356

Iron ore

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Iron ore										
<i>Consumption</i>	12 975 100	9 126 300	9 022 900	8 497 100	8 464 500					
<i>Imports</i>										
Iron ore	12 044 762	9 281 505	9 128 808	8 898 721	7 658 408	495 481	422 027	611 301	587 059	592 978
Fe content (a)	7 200 000	5 600 000	5 500 000	5 300 000	4 600 000					
<i>Exports</i>										
Iron ore	91 853	3 722	2 205	2 923	1 623	3 134	989	594	819	572

(a) BGS estimates.

Iron and steel

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Iron and steel										
<i>Production</i>										
Pig iron	8 773 500	6 142 400	5 996 500	5 587 900	5 621 700					
<i>Crude steel-</i>										
Alloy qualities	502 300	404 500	466 100	454 200	345 100					
Other	10 404 400	7 230 400	7 025 200	6 813 500	6 873 000					
Total	10 906 700	7 634 900	7 491 300	7 267 700	7 218 100					
<i>Consumption</i>										
Pig iron (a)	8 737 000	6 082 000	5 920 000	5 613 000	5 618 000					
Finished steel (b)	9 587 000	9 880 000	10 118 000	9 913 000	9 344 000					
Scrap	3 699 800	2 550 800	2 691 800	2 788 500	2 685 700					
<i>Imports</i>										
Pig iron	40 920	32 063	42 350	37 901	43 079	16 147	7 814	14 469	12 353	14 214
Shot, powder, sponge etc	36 452	30 459	21 310	22 664	24 092	33 130	25 797	32 352	40 618	45 928
Ferro-alloys	180 427	147 268	163 971	181 157	159 385	169 833	128 084	202 586	246 329	196 933
Ingots and other primary forms	353 841	417 001	422 137	725 999	574 167	189 724	203 481	254 965	410 305	329 885
Scrap	238 363	226 250	321 663	366 533	268 277	67 137	68 287	112 448	144 746	80 363
<i>Exports</i>										
Pig iron	2 525	346	4 470	8 058	6 322	1 911	196	787	1 692	1 597
Shot, powder, sponge etc	36 638	59 228	44 528	36 124	42 604	47 689	48 605	57 180	65 374	69 262
Ferro-alloys	35 071	34 285	38 592	36 765	31 465	142 485	121 163	197 018	251 672	230 847
Ingots and other primary forms	2 412 446	470 280	476 459	663 715	466 558	916 498	427 734	549 308	707 814	533 873
Scrap	7 155 388	7 928 339	8 567 251	8 546 485	7 914 657	1 408 537	1 460 245	2 168 719	2 332 820	1 989 400

(a) Consumption in steel making only.

(b) Net home disposals

Consumption in the United Kingdom iron and steel industry 2010–2019

Thousand tonnes

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Iron ore –										
Home produced (a)	—	—	—	—	—	—	—	—	—	—
Imported (b)	10 572	9 735	10 511	14 037	14 353	12 975	9 126	9 023	8 497	8 465
Manganese ore	—	—	—	3	—	—	10	2	—	—
Iron and steel scrap (f)	3 713	3 890	3 675	4 085	4 145	3 700	2 551	2 692	2 789	2 686
Pig iron (f)	7 088	6 610	7 325	9 909	9 678	8 737	6 082	5 920	5 613	5 618
Alloy metals (c) –										
Nickel	10	12	10	...	...	...	...	...	...	...
Molybdenum	1	2	2	...	...	...	...	...	...	...
Tungsten	0	0	0	...	...	...	...	...	...	...
Vanadium	0	0	0	...	...	...	...	...	...	...
Cobalt	0	0	0	...	...	...	...	...	...	...
Chromium	34	44	42	...	...	...	...	...	...	...
Niobium	0	0	0	...	...	...	...	...	...	...
Ferro-alloys –										
Ferro-manganese	67	66	66	...	...	...	...	...	...	...
Ferro-silico-manganese	16	16	16	...	...	...	...	...	...	...
Ferro-aluminium	2	2	2	...	...	...	...	...	...	...
Ferro-chromium	(d)	(d)	(d)	...	...	...	...	...	...	...
Ferro-silico-chromium	(d)	(d)	(d)	...	...	...	...	...	...	...
Ferro-silicon	26	26	26	...	...	...	...	...	...	...
Ferro-silico-zirconium	0	0	0	...	...	...	...	...	...	...
Calcium silicide	0	0	0	...	...	...	...	...	...	...
Ferro-phosphorus	1	1	1	...	...	...	...	...	...	...
Ferro-niobium	(d)	(d)	(d)	...	...	...	...	...	...	...
Ferro-titanium	1	1	1	...	...	...	...	...	...	...
Dolomite (raw and burnt) (e)	399	344	556	759	793	790	494	451	427	492
Limestone (e)	948	932	912	1 147	1 255	1 041	680	653	638	591
Lime (e)	371	395	379	387	461	415	294	324	335	400
Zinc for galvanising	49	48	42	...	...	...	...	...	...	...
Tin for tinplating	3	2	2	...	...	...	...	...	...	...

Average Fe content: (a) 55%, (b) 62%.

(c) Metal content.

(d) Included under alloying metals.

(e) Restricted to consumption in blast furnaces, sinter plants and steel furnaces.

(f) Consumption in steel making only.

Source: Iron and Steel Statistics Bureau.

Lead

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Lead										
<i>Production</i>										
Concentrate-										
Pb content (a) (b)	100	100	100	100	150					
Unwrought-										
Bullion	36 000	36 000	36 000	36 000	36 000					
Refined										
Primary (c)	149 000	170 000	165 000	153 000	138 000					
Refined-Secondary	158 000	158 000	165 000	165 000	162 000					
<i>Consumption</i>										
Refined	167 098	238 964	265 827	236 183	284 823					
<i>Imports</i>										
Ores & concentrates	2 779	996	1 242	1 330	1 949	2 790	1 781	2 867	2 905	3 435
Ash and residues	1	236	37	1	105	11	290	36	9	228
Unwrought										
Unrefined-										
Base bullion (d)	181 923	133 917	149 358	115 539	116 553	294 539	258 379	353 902	259 315	232 526
Other	0	1 552	1 128	1 249	1 669	1	1 344	2 451	30 751	39 958
Refined	17 889	19 069	30 717	26 020	38 570	22 572	27 324	57 305	43 322	63 173
Alloys	9	—	10	21	106	24	—	33	33	166
Scrap	6 419	4 904	2 998	2 250	6 218	5 959	5 600	3 890	3 081	9 000
<i>Exports</i>										
Ores & concentrates	4 172	1 824	1 914	1 838	2 231	3 782	2 634	2 843	3 259	2 526
Ash and residues	2 293	1 953	3 674	8 316	7 998	262	402	742	642	1 581
Unwrought										
Unrefined-										
Base bullion	0	—	258	—	349	6	—	1 388	7	649
Other	29 543	81 750	74 746	63 162	6 189	41 570	134 363	156 728	128 821	154 434
Refined	152 109	100 035	87 047	80 120	74 760	206 002	148 443	168 709	152 919	132 072
Alloys	5 790	9 057	10 649	22 677	33 520	8 016	13 934	21 135	41 617	58 070
Scrap	42 405	62 815	62 057	58 094	46 328	40 307	53 948	82 703	78 254	54 767

(a) BGS estimate.

(b) By-product of Pennine fluorspar operations and gold mining in Northern Ireland.

(c) Refined from imported bullion including lead content of alloys.

(d) Containing substantial quantities of silver.

Limestone, dolomite and chalk

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Limestone										
<i>Production</i>										
Limestone	...	...	...	...	...
Dolomite	...	...	...	...	...
<i>Imports</i>										
Limestone flux (a)	174 781	190 632	462 833	315 851	16 954	11 243	13 124	25 251	19 652	2 100
Lime	10 406	6 680	8 101	7 007	8 210	1 679	1 115	1 821	1 846	1 937
Dolomite	206 463	161 213	242 606	247 144	215 127	5 271	4 658	8 227	9 609	9 529
<i>Exports</i>										
Limestone flux (a)	225 348	187 926	209 183	193 333	162 027	2 763	2 688	3 406	2 974	2 190
Lime	141 971	129 803	131 872	126 455	141 954	23 549	24 306	26 831	22 495	23 549
Dolomite (b)	172 600	159 700	190 800	195 700	240 900	13 500	14 500	20 200	25 800	29 600
Chalk										
<i>Production</i>										
					
<i>Imports</i>										
	12 363	12 597	13 217	9 483	12 451	1 094	1 219	1 532	3 135	2 397
<i>Exports</i>										
	52 182	35 291	25 151	25 787	30 155	2 371	2 800	2 711	2 856	3 176

(a) Including calcareous stone commonly used for the manufacture of lime or cement.

(b) BGS estimates based on known imports into certain countries.

Great Britain consumption of dolomite, limestone and lime in iron and steel production, 1982–2019

Thousand tonnes

Year	Dolomite, incl. calcined dolomite (dolime)		Limestone			Lime	
	Blast furnaces and sinter plants	Steel furnaces	Blast furnaces and sinter plants	Steel furnaces	Other purposes	Steel Furnaces	Other purposes
1982	280	255	888	2	—	799	—
1983	400	298	1 164	1	—	865	—
1984	405	310	1 143	1	—	824	—
1985	425	284	1 562	—	—	801	—
1986	333	270	1 494	2	—	680	—
1987	405	275	1 827	—	—	761	—
1988	477	319	1 948	—	—	810	—
1989	430	315	2 062	—	—	822	—
1990	410	287	1 992	—	—	778	—
1991	323	264	2 124	—	—	696	—
1992	391	246	2 033	—	—	682	—
1993	276	238	2 077	—	—	719	—
1994	201	264	2 236	—	—	767	—
1995	67	316	2 318	—	—	787	—
1996	59	397	2 225	—	—	744	—
1997	42	462	2 445	—	—	751	—
1998	3	492	2 411	—	—	739	—
1999	5	364	2 408	—	—	698	—
2000	1	337	2 166	—	—	660	—
2001	7	254	1 889	—	—	561	—
2002	8	215	1 684	—	—	501	—
2003	8	246	2 019	—	—	530	—
2004	3	260	2 068	—	—	584	—
2005	0	243	1 951	—	—	593	—
2006	183	262	2 028	—	—	631	—
2007	184	291	1 822	—	—	585	—
2008	166	254	1 664	—	—	496	—
2009	145	224	1 095	—	—	378	—
2010	156	243	948	—	—	371	—
2011	127	217	932	—	—	395	—
2012	383	174	912	—	—	379	—
2013	543	217	1 147	—	—	387	—
2014	542	251	1 255	—	—	461	—
2015	422	368	1 041	—	—	415	—
2016	303	191	680	—	—	294	—
2017	269	182	653	—	—	324	—
2018	282	145	638	—	—	335	—
2019	351	142	591	—	—	400	—

Source: Iron and Steel Statistics Bureau.

This table shows the consumption of fluxes used in iron and steelmaking. Dolomite and limestone are used in blast furnaces and in sinter plants, whilst lime and calcined dolomite, or dolime, are used in steelmaking. These figures do not entirely agree with those shown elsewhere for the production of limestone, dolomite and chalk for iron and steelmaking, even allowing for the conversion of lime and dolime to carbonate.

Lithium

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Lithium										
<i>Imports</i>										
Oxide and hydroxide	93	263	324	358	552	863	5 375	5 118	5 030	5 266
Carbonate	405	1 095	1 919	1 680	1 648	1 870	6 953	13 859	18 708	9 709
<i>Exports</i>										
Oxide and hydroxide	47	113	228	195	396	317	1 417	2 994	3 521	3 961
Carbonate	294	447	768	842	645	1 280	3 217	8 287	10 990	5 845

Magnesia

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Magnesia										
<i>Imports</i>										
Magnesite	4 955	5 438	5 696	2 201	6 065	1 088	1 289	1 262	775	1 566
Magnesia-										
Dead burned	1 491	1 802	5 163	8 475	7 760	964	878	2 409	4 384	4 604
Caustic-calcined	25 816	25 961	26 358	22 953	26 717	6 535	7 719	8 464	8 503	8 899
Other	20 220	11 732	8 629	7 046	7 556	6 097	4 045	4 255	4 995	6 571
Kieserite	12 658	11 859	13 990	14 723	8 674	2 500	2 214	2 888	3 081	1 841
Magnesite or chrome-magnesite										
refractory bricks and shapes (a)(b)	19 513	14 413	12 758	18 089	29 893	14 050	11 069	10 702	16 697	17 772
<i>Exports</i>										
Magnesite	408	682	627	315	281	462	737	929	518	716
Magnesia-										
Dead burned	795	844	1 185	1 463	2 117	610	798	1 252	1 461	1 879
Caustic-calcined	2 016	2 899	2 466	3 214	3 376	771	585	658	801	1 003
Other	7 328	6 159	5 730	7 585	7 311	9 336	7 493	8 025	11 097	12 252
Kieserite	14	112	133	40	50	8	47	51	15	20
Magnesite or chrome-magnesite										
refractory bricks and shapes (a)(b)	1 385	470	2 329	5 686	5 448	694	437	1 826	2 811	3 781

(a) Including dolomite bricks.

(b) Fired bricks and shapes only; unfired (chemically bonded) products excluded.

Magnesium

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Magnesium										
<i>Imports</i>										
Ferro-silico-magnesium	844	209	309	457	376	557	187	296	326	407
Scrap	197	295	359	129	25	114	275	252	102	54
Unwrought	3 172	2 485	3 212	3 404	2 571	4 935	4 000	5 839	6 490	5 306
Unwrought alloys	8 034	8 804	3 661	1 397	291	13 772	16 253	7 918	3 116	786
Wrought	6 431	3 531	5 127	4 989	3 704	23 212	23 317	29 272	21 827	19 484
<i>Exports</i>										
Ferro-silico-magnesium	37	68	64	72	83	108	84	85	106	112
Scrap	7 147	6 173	2 926	1 151	153	10 969	12 198	6 370	2 280	137
Unwrought	50	63	6	75	9	63	185	120	438	109
Unwrought alloys	1 870	1 422	1 636	1 868	1 436	14 852	15 178	16 182	22 162	17 939
Wrought	507	512	541	552	369	5 419	7 697	12 483	23 706	12 864

Manganese

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Manganese										
<i>Consumption in Iron and Steel Industry</i>										
Ore	—	9 700	2 400	—	—					
<i>Apparent consumption (a)</i>	66 000	50 000	44 000	56 000	57 000					
<i>Imports</i>										
Ores & Concentrates (b)	3 045	2 634	3 689	3 212	3 337	1 365	959	1 683	1 474	1 305
Ferro-manganese	39 129	29 248	21 903	31 607	34 438	25 205	18 004	25 909	33 661	33 570
Ferro-silico-manganese	45 039	35 044	31 735	35 815	35 215	25 847	18 092	30 286	30 865	29 138
Scrap	71	51	15	51	12	106	69	25	95	20
Unwrought	3 012	3 038	3 393	3 574	2 630	4 285	4 751	5 078	5 812	4 251
Wrought	0	19	82	2	279	10	41	159	14	624
Oxides	7 767	5 218	6 317	5 984	5 862	3 596	2 717	4 075	4 283	4 811
<i>Exports</i>										
Ores & Concentrates	517	419	375	497	136	576	394	374	548	164
Ferro-manganese	1 695	1 561	2 132	416	464	3 017	1 693	4 802	804	675
Ferro-silico-manganese	402	789	156	122	178	117	178	188	67	87
Scrap	6	7	2	24	2	16	24	6	43	5
Unwrought	349	234	118	134	140	474	326	199	237	275
Wrought	42	3	20	1	3	109	156	121	70	138
Oxides	2 298	1 648	1 349	655	989	1 553	947	1 089	529	936
Metal (c)	900	1 300	800	500	500	1 700	1 800	2 200	1 000	1 100

(a) BGS estimates; see explanatory notes.
 (b) Including manganiferous iron ore.

(c) BGS estimates, based on known imports into certain countries.

Marble

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Marble										
<i>Imports</i>										
Dimension stone-										
Unworked	9 006	15 981	30 167	33 351	35 478	6 084	8 190	11 745	15 895	11 865
Worked	67 020	62 073	55 704	46 885	55 830	44 916	46 773	49 320	41 948	59 458
Crushed and powdered	128 552	129 724	126 492	132 421	89 451	9 870	10 094	8 893	9 212	7 104
<i>Exports</i>										
Dimension stone-										
Unworked	437	578	834	1 219	1 265	294	413	465	836	1 225
Worked	1 428	896	809	831	1 150	7 201	3 155	3 417	4 246	4 666
Crushed and powdered	400	261	387	657	280	142	73	46	102	62

Mercury

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Mercury										
<i>Imports</i>										
Elemental	2	9	0	0	10	29	58	27	55	85
<i>Exports</i>										
Elemental	0	37	0	0	0	23	89	13	7	2

Mica

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Mica										
<i>Imports</i>										
Crude (a)	164	100	514	271	1 065	41	34	151	87	319
Ground	6 960	7 059	8 072	7 789	5 465	1 864	2 495	3 042	3 731	2 280
Waste	0	0	—	...	—	9	9	—	...	—
Worked	1 102	1 329	1 099	1 212	972	3 984	4 446	4 781	4 509	3 809
<i>Exports</i>										
Crude (a)	0	0	10	8	17	1	8	107	20	46
Ground	4 035	4 259	4 590	4 863	4 650	3 307	3 786	4 716	5 063	4 817
Waste	0	—	2	—	7	4	—	15	—	5
Worked	564	902	919	904	997	7 527	10 453	11 306	11 708	11 193

(a) Including sheets or splittings.

Molybdenum

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Molybdenum										
<i>Apparent consumption (a)(b)</i>	3 600	1 600	3 300	1 200	2 100					
<i>Imports</i>										
Roasted molybdenite concentrates	11 709	10 117	15 701	14 040	12 896	82 918	62 197	127 191	160 297	164 155
Other ores and concentrates	223	204	33	11	94	1 650	1 298	321	176	827
Ferro-molybdenum	307	72	220	267	419	2 993	674	1 796	3 373	5 919
Scrap	1 410	1 207	1 519	1 719	2 010	10 957	14 000	22 374	33 480	43 012
Powders	136	165	144	55	133	2 095	3 250	3 208	1 407	3 832
Unwrought	64	137	231	182	331	1 147	1 665	4 573	4 078	7 588
Wrought	119	66	75	58	34	2 401	1 753	2 717	3 210	2 921
Oxides and hydroxides	1 624	730	1 573	1 301	1 556	11 173	4 165	12 641	15 485	16 375
<i>Exports</i>										
Roasted molybdenite concentrates	44	—	0	15	120	18	—	1	173	1 466
Other ores and concentrates	1	0	0	12	—	18	23	3	16	—
Ferro-molybdenum	9 712	9 620	12 833	13 301	12 236	77 322	75 010	125 981	187 460	179 493
Scrap	313	599	1 186	1 744	1 399	4 661	7 497	16 860	25 967	35 567
Powders	37	40	54	153	160	870	950	980	2 137	3 003
Unwrought	10	3	34	52	197	118	84	586	1 285	5 948
Wrought	15	46	3	14	9	1 432	1 545	787	815	841
Oxides and hydroxides	120	0	0	—	2	933	37	14	9	45

(a) Metal content.

(b) BGS estimates; see explanatory notes.

Nepheline syenite

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Nepheline syenite										
<i>Imports</i>	35 009	34 477	38 645	36 122	28 872	3 032	3 117	3 491	3 474	3 018
<i>Exports</i>	313	513	537	567	446	128	130	113	150	99

Nickel

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Nickel										
<i>Production (a)</i>	38 804	45 194	38 052	41 220	39 632					
<i>Consumption (b)(c)</i>	18 070	24 384	24 938	26 106	23 873					
<i>Imports</i>										
Ores & concentrates	1	24	28	0	0	143	148	231	3	9
Mattes, sinters etc.	59 668	68 651	52 114	50 887	51 744	357 155	331 699	327 204	381 688	397 062
Scrap	9 125	11 960	8 337	10 562	13 294	50 651	44 563	50 473	66 737	87 207
Ferro-nickel	7 782	7 618	7 272	11 279	10 713	15 674	14 129	15 149	26 287	12 665
Unwrought	8 740	8 653	10 330	9 857	9 033	76 105	59 795	83 126	103 051	96 526
Unwrought alloys	3 180	3 044	4 530	4 591	4 796	38 651	31 364	69 764	97 352	85 906
Oxides	7	9	32	51	154	104	89	174	148	244
<i>Exports</i>										
Ores & concentrates	0	0	5	12	0	16	9	75	20	6
Ash and residues	10 532	11 547	9 986	9 487	9 136	100 907	111 851	100 252	95 139	89 740
Mattes, sinters etc.	555	237	226	65	94	4 570	1 959	2 620	1 032	1 244
Scrap	11 932	14 443	11 442	20 460	13 863	73 695	70 633	87 575	114 417	118 612
Ferro-nickel	14	427	291	154	478	74	136	290	252	680
Unwrought	28 518	30 034	26 493	23 520	17 301	233 126	215 878	234 309	240 021	194 798
Unwrought alloys	7 085	7 833	7 437	7 752	8 257	99 329	101 658	99 385	122 048	132 713
Oxides	2	0	1	0	0	91	14	37	30	20

(a) Nickel content of refinery products.

(b) Metal content.

(c) Including the nickel content of ferro-nickel and other smelter products.

Niobium (see Tantalum and Niobium)

Peat

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Peat										
<i>Production</i>	...	...	...	...	...
<i>Imports</i>										
Peat and agglomerated peat	428 362	509 911	503 240	470 074	522 520	23 946	30 115	33 058	35 338	40 103
<i>Exports</i>										
Peat and agglomerated peat	46 715	47 014	41 817	41 206	37 292	4 775	5 190	5 653	5 941	5 776

Perlite

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Perlite										
<i>Imports (a)</i>	31 484	28 945	22 333	40 402	34 763	4 477	5 052	6 134	6 343	6 397
<i>Exports (a)</i>	600	672	1 089	831	682	387	513	592	456	497

(a) Figures also include vermiculite and chlorites.

Petroleum (also see Primary fuels)

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Petroleum										
<i>Production</i>										
Crude petroleum	42 826 000	44 306 000	43 185 000	47 145 000	48 743 000					
Condensates and other (a)	2 462 000	3 139 000	3 446 000	3 320 000	3 074 000					
Refined petroleum products	60 929 000	60 003 000	59 796 000	58 205 000	58 548 000					
<i>Consumption (inland deliveries)</i>										
<i>of refined products</i>										
<i>Used as fuels-</i>										
Refineries	3 352 000	3 377 000	3 389 000	3 352 000	3 300 000					
Elsewhere	58 310 000	59 159 000	60 056 000	59 502 000	58 646 000					
Not used as fuels	6 525 000	7 035 000	7 262 000	6 921 000	6 465 000					
Total	68 187 000	69 571 000	70 707 000	69 775 000	68 473 000					
<i>Imports</i>										
Crude petroleum	44 138 446	43 320 697	50 351 691	48 064 186	49 925 112	12 050 230	10 585 049	16 074 046	19 739 796	19 203 974
Partly refined petroleum and refined products	34 823 771	35 803 762	33 839 960	36 049 170	13 282 335	12 072 223	10 705 765	12 792 546	16 458 324	5 868 175
<i>Exports</i>										
Crude petroleum	37 530 691	39 927 139	45 743 284	49 786 125	45 479 841	10 556 745	9 710 798	14 683 669	20 360 353	18 191 562
Partly refined petroleum and refined products	23 817 716	23 190 368	23 732 942	22 448 030	4 121 764	7 728 866	6 907 997	9 223 996	10 580 955	1 887 489

(a) Including ethane, propane and butane, in addition to condensates.

Natural gas

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Natural gas										
<i>Production</i>										
Methane										
Colliery (a)	30 000	38 000	35 000	33 000	24 000					
Offshore and onshore (a)	38 817 000	39 838 000	38 864 000	38 678 000	37 747 000					
<i>Consumption (b)</i>	68 378 000	76 635 000	74 618 000	75 578 000	75 051 000					
<i>Imports</i>										
Liquefied natural gas (c)	13 104 630	10 060 675	6 312 073	6 716 374	17 228 556					
Natural gas in gaseous state (c)	29 750 122	35 242 070	38 143 892	37 744 835	27 304 19					
Total (c)	42 854 752	45 302 745	44 455 965	44 461 210	44 532 749	6 990 000	6 085 000	7 465 000	10 845 000	6 965 000
Other natural gas (d)	736 763	1 198 131	1 065 836	801 671	548 543	203 986	295 282	387 896	322 814	216 678
<i>Exports</i>										
Liquefied natural gas and natural gas in gaseous state (c)	13 444 013	9 843 219	10 699 200	7 127 211	7 506 319	2 310 000	1 355 000	1 830 000	1 820 000	1 125 000
Other natural gas (d)	2 447 025	3 390 326	2 976 609	2 838 830	2 883 818	650 148	851 269	1 053 820	1 171 313	1 025 506

- (a) Oil equivalent: converted from original data at 397 therms = 1 tonne.
 (b) Tonnes oil equivalent: excluding minor consumption for non-energy use.
 (c) Tonnes of oil equivalent, converted from GWh using 85.985 tonnes of oil equivalent to 1 GWh. Source: Department of Business, Energy and Industrial Strategy.

- (d) Includes propane, liquefied propane, butane, liquefied butane, ethylene, gaseous hydrocarbons.

Phosphorus

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Phosphorus										
<i>Imports</i>										
Phosphate rock	2 445	801	558	168	263	605	364	284	124	231
Fertiliser	131 665	138 256	165 383	144 232	147 062	46 137	41 649	49 060	47 843	48 970
Superphosphates	128 374	154 397	136 506	171 739	160 914	33 198	35 711	31 155	47 606	40 917
Other phosphatic fertilisers	6 239	5 893	10 149	2 520	4 772	943	920	1 565	704	1 073
Elemental phosphorus	824	1 360	1 658	1 817	698	1 901	2 984	5 283	4 281	1 767
Phosphoric acids	91 195	75 949	82 254	73 845	71 881	49 322	41 901	44 489	48 082	49 355
Calcium phosphates	70 210	81 672	85 221	96 918	99 703	30 491	40 389	38 386	42 418	43 682
Sodium phosphates and orthophosphates	8 930	10 015	8 751	8 288	9 507	9 128	9 293	8 878	9 369	9 691
Polyphosphates including ammonium and sodium	17 426	34 052	26 642	37 600	32 162	20 315	25 051	25 450	30 857	31 124
<i>Exports</i>										
Phosphate rock	119	71	234	281	63	114	490	215	1 193	790
Fertiliser	503	487	786	1 002	712	529	553	507	810	652
Superphosphates	39	75	23	1 877	44	26	243	153	546	15
Other phosphatic fertilisers	10 130	9 477	5 769	6 604	5 138	949	1 893	1 202	956	657
Elemental phosphorus	0	0	0	0	8	31	27	19	18	20
Phosphoric acids	1 260	1 967	1 916	1 715	7 502	1 534	1 960	1 784	1 945	6 455
Calcium phosphates	1 455	4 169	4 515	1 422	1 829	4 064	6 494	3 967	1 623	2 547
Sodium phosphates and orthophosphates	1 012	830	870	643	826	1 385	1 338	1 472	1 308	1 238
Polyphosphates including ammonium and sodium	1 276	1 497	1 439	1 213	1 555	2 792	3 398	3 720	4 096	3 641

Platinum group metals

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Platinum group metals										
<i>Imports</i>										
Unwrought or partly worked-										
Platinum	155	204	339	84	96	839 657	1 108 904	1 399 896	1 470 589	2 031 032
Palladium	62	216	422	48	67	515 339	495 410	1 054 226	1 126 245	2 500 250
Other platinum metals	27	79	23	14	10	70 172	64 784	145 127	235 522	456 004
Waste & scrap	777	340	1 281	1 194	663	218 270	222 215	201 653	48 637	42 652
<i>Exports</i>										
Unwrought or partly worked-										
Platinum	78	120	91	95	62	1 478 439	1 618 559	2 099 626	1 972 488	1 347 677
Palladium	84	91	89	83	83	1 224 311	1 276 426	1 906 302	2 049 827	3 113 649
Other platinum metals	55	60	23	51	20	215 877	195 277	319 628	522 053	900 193
Waste & scrap	2 607	2 811	2 265	3 149	2 957	25 809	27 191	39 697	71 402	100 318

There is no mine production of platinum group metals in the UK. However, refined platinum group metals are produced from imported materials and recycling but information is insufficient to enable an estimate to be made.

Potassium compounds

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Potassium compounds										
<i>Production</i>										
Chloride (K ₂ O Content)	594 000	432 000	216 000	210 000	—					
Polyhalite	200 000	200 000	500 000	400 000	635 000					
<i>Imports</i>										
Sulphate	15 795	11 743	12 270	10 151	9 057	5 728	4 843	4 688	3 845	4 272
Chloride	154 689	156 456	362 278	333 293	448 937	35 544	32 290	75 128	73 172	105 644
Other potassic fertilisers	3 948	6 598	6 713	2 866	3 563	597	1 103	1 638	1 357	1 731
<i>Exports</i>										
Sulphate	567	1 497	1 269	2 221	2 546	193	520	370	607	710
Chloride	(a) 652 000	(a) 433 000	(a) 212 000	36 633	77 842	(a) 180 000	(a) 109 000	(a) 53 000	12 573	18 801
Other potassic fertilisers	86 428	160 420	224 884	283 256	451 513	7 014	9 301	21 337	23 122	38 599

(a) BGS estimates, based on known imports into certain countries.

Precious and semi-precious stones

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Precious and semi-precious stones (excluding diamond) (a)										
<i>Imports</i>										
Natural stones	382	330	498	387	474	230 277	152 908	158 284	94 105	135 750
Synthetic stones	25	40	29	18	41	3 242	3 721	10 559	7 478	17 121
Dust and powder	2	1	2	1	1	273	154	339	427	66
<i>Exports</i>										
Natural stones	64	(b) 28	56	22	154	247 854	117 000	163 444	116 802	209 652
Synthetic stones	7	8	6	6	4	12 603	10 605	18 837	24 754	17 813
Dust and powder	1	(b) 8	1	1	132	540	580	429	144	243

(a) Unworked, cut or otherwise worked, but not mounted, set or strung.

(b) BGS estimates, based on known imports into certain countries.

United Kingdom production of primary fuels 1989–2019 (energy supplied basis)

Million tonnes of oil equivalent (a)

Year	Coal	Petroleum	Natural gas (b)	Bioenergy & waste (c)	Nuclear electricity	Wind and hydro-electricity (d)	Total
1989	61	100	41	1	18	0	221
1990	56	100	46	1	16	0	219
1991	58	100	51	1	17	0	227
1992	52	104	52	1	19	1	227
1993	42	110	61	1	22	1	235
1994	30	139	65	2	21	0	257
1995	33	143	71	2	21	1	270
1996	31	142	84	2	22	0	282
1997	30	140	86	2	23	0	282
1998	26	145	90	2	23	1	287
1999	23	150	99	2	22	1	298
2000	20	138	108	2	20	1	289
2001	20	128	106	3	21	0	277
2002	19	127	104	3	20	1	273
2003	18	116	103	3	20	0	260
2004	16	105	96	3	18	1	238
2005	13	93	88	4	18	1	217
2006	11	84	80	4	17	1	197
2007	11	84	72	4	14	1	186
2008	11	79	70	4	12	1	177
2009	11	75	60	5	15	1	167
2010	11	69	55	6	14	1	157
2011	12	57	44	6	16	2	136
2012	11	49	37	7	15	2	121
2013	8	45	35	8	15	3	114
2014	7	44	36	8	14	4	113
2015	5	50	39	11	16	5	124
2016	3	52	40	12	15	5	126
2017	2	51	40	13	15	6	127
2018	2	56	39	14	14	7	130
2019	2	57	38	14	13	7	131

(a) Based on a standard 'tonne of oil equivalent' equal to 397 therms.

(b) Including colliery methane.

(c) Includes solid renewable sources (wood, straw and waste), a small amount of renewable primary heat sources (solar, geothermal, etc.), liquid biofuels, landfill gas and sewage gas

(d) Includes generation by solar PV. Excludes generation from pumped storage stations

Source: Department for Business, Energy and Industrial Strategy.

United Kingdom consumption of energy (primary fuel input) 1989–2019 (energy supplied basis)

Million tonnes of oil equivalent (a)

Year	Coal	Petroleum	Natural gas (b)	Bioenergy & waste (c)	Nuclear electricity	Wind and hydro-electricity (d)	Net imports of electricity	Total
1989	67	75	49	1	18	0	1	211
1990	67	77	51	1	16	0	1	214
1991	67	77	55	1	17	0	1	220
1992	63	78	55	1	19	1	1	217
1993	55	78	63	1	22	1	1	221
1994	51	77	65	1	21	0	2	218
1995	50	76	71	2	21	0	1	221
1996	46	76	83	2	22	0	1	231
1997	41	74	84	2	22	0	1	225
1998	41	75	87	2	23	1	1	231
1999	36	76	93	2	22	1	1	231
2000	38	77	96	2	20	1	1	234
2001	41	76	96	3	21	0	1	237
2002	38	73	94	3	20	1	1	230
2003	40	73	95	3	20	0	0	231
2004	39	75	97	3	18	1	1	234
2005	40	78	94	4	18	1	1	236
2006	43	77	89	4	17	1	1	233
2007	41	76	90	5	14	1	0	228
2008	38	74	93	6	12	1	1	226
2009	31	71	86	7	15	1	0	212
2010	33	70	94	8	14	1	0	220
2011	32	68	78	8	16	2	1	204
2012	41	67	73	8	15	2	1	208
2013	39	66	73	10	15	3	1	207
2014	32	66	66	11	14	4	2	194
2015	25	67	68	14	16	5	2	197
2016	13	68	76	15	15	5	2	194
2017	10	70	74	16	15	6	1	192
2018	9	69	75	18	14	7	2	192
2019	6	68	74	19	13	7	2	190

(a) Based on a standard 'tonne of oil equivalent' equal to 397 therms.

Source: Department of Energy and Climate Change.

(b) Including colliery methane.

(c) Includes solid renewable sources (wood, straw and waste), a small amount of renewable primary heat sources (solar, geothermal, etc.), liquid biofuels, landfill gas and sewage gas

(d) Includes generation by solar PV. Excludes generation from pumped storage stations

Pumice

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Pumice										
<i>Imports</i>	4 634	8 034	2 699	2 131	1 550	1 126	989	863	717	654
<i>Exports</i>	100	254	328	500	304	130	244	301	431	323

Pyrite

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Pyrite										
<i>Imports</i>										
Iron pyrites (incl.cupreous)-										
Unroasted	467	648	798	2 079	2 848	118	156	180	468	1 003
Roasted	155	311	77	426	335	81	103	68	165	82
<i>Exports</i>										
Iron pyrites (incl.cupreous)-										
Unroasted	14	2 979	3 014	6 876	226	15	800	939	1 600	100
Roasted	—	0	0	1	—	—	2	3	6	1

Quartz and quartzite

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Quartz and quartzite										
<i>Imports</i>										
Quartzite	553	524	410	3 921	4 471	320	251	280	209	296
Quartz	14 040	15 815	25 431	20 011	22 002	8 225	11 405	19 860	16 384	22 300
<i>Exports</i>										
Quartzite	0	—	14	20	11	2	—	31	414	128
Quartz	489	346	419	928	696	231	319	544	895	1 119

Radioactive and associated materials

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Radioactive and associated materials										
<i>Imports</i>										
Natural and enriched uranium, plutonium, artificial radioactive isotopes, and their compounds	832 713	563 863	246 120	307 981	294 606
<i>Exports</i>										
Natural and enriched uranium, isotopes, and their compounds	915 982	713 043	216 866	239 944	277 540

Rare earths

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Rare earths										
<i>Imports</i>										
Metals (a)	42	10	6	0	0	1 261	245	154	14	28
Cerium compounds	693	502	1 302	437	346	6 232	8 600	12 143	3 367	3 128
Other rare earth compounds (b)	565	341	628	499	563	14 478	6 582	16 235	13 596	9 427
Ferro-cerium & other pyrophoric alloys	29	67	41	1	4	153	170	101	35	102
<i>Exports</i>										
Metals (a)	17	9	13	12	10	1 248	412	512	374	231
Cerium compounds	280	38	775	151	36	1 027	1 073	12 899	2 292	1 736
Other rare earth compounds (b)	259	165	278	356	218	4 212	4 121	6 733	9 308	4 484
Ferro-cerium & other pyrophoric alloys	47	1	25	50	45	226	170	330	302	282

(a) Including yttrium and scandium.

(b) Including yttrium and scandium compounds.

Salt

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Salt										
<i>Production</i>	(a) 4 000 000	3 898 987	2 361 707	3 430 266	2 254 046					
<i>Imports</i>	536 067	445 477	703 377	1 129 652	856 464	43 267	52 363	72 200	76 796	73 409
<i>Exports</i>	350 744	243 433	352 195	366 935	273 285	37 940	37 974	47 594	60 078	52 001

(a) BGS estimate based on last reported figure in 2014.

Sand and gravel (see also Aggregates)

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Sand and gravel										
<i>Production*</i>										
Sand & gravel (a)	66 443 000	68 075 000	67 548 000	69 882 000	(b) 66 800 000					
<i>Consumption</i>										
Building sand	...	...	...	...	...
Concreting sand	...	...	...	...	...
Gravel and hoggin	...	...	...	...	...
Total	...	...	...	...	...
<i>Imports</i>	722 068	879 166	631 921	488 876	465 526	14 737	17 793	18 704	19 951	25 586
<i>Exports (c)</i>	2 223 131	2 445 821	2 409 597	2 841 913	3 257 033	22 694	26 552	26 473	28 994	40 017

* Source: Sources: Mineral Product Association, Department for the Economy (Northern Ireland)

(a) Including production from marine dredging.
 (b) Includes an estimate for Northern Ireland.

(c) Principally marine dredged sand and gravel. Source: HM Revenue and Customs. However, the Crown Estate Commissioners give the following figures for marine dredged sand and gravel landed at foreign ports (tonnes): 2015: 2 153 146; 2016: 2 767 125, 2017: 3 127 371; 2018: 4 110 142 and 2019: 4 672 369.

United Kingdom production of sand and gravel 1994–2019

Million tonnes

Year	Land-based production			Marine-dredged			Total production United Kingdom	For beach replenishment (c) (f)
	Great Britain (a)	Northern Ireland (b)	Total	For home market (a)	For export (c)	Total		
1994	86.3	5.1	91.5	11.3	6.6	18.0	109.4	1.3
1995	78.0	5.3	83.3	11.6	6.8	18.4	101.7	5.2
1996	70.5	5.3	75.7	11.5	6.7	18.2	93.9	7.2
1997	74.4	5.1	79.5	12.0	6.9	18.9	98.4	4.9
1998	73.0	5.3	78.3	13.0	7.0	20.0	98.3	2.4
1999	74.8	5.5	80.3	13.4	7.2	20.7	101.0	2.8
2000	74.9	5.1	80.0	14.4	7.3	21.7	101.6	2.4
2001	74.6	6.2	80.8	13.6	7.0	20.6	101.4	1.6
2002	69.9	5.5	75.4	12.8	6.2	19.0	94.4	1.5
2003	68.1	4.9	73.0	12.1	6.1	18.2	91.2	2.1
2004	73.1	5.1	78.1	13.0	6.1	19.2	97.3	1.8
2005	69.4	5.8	75.2	13.0	6.5	19.5	94.7	1.5
2006	66.3	5.2	71.5	14.0	6.7	20.7	92.1	4.1
2007	64.7	8.1	72.8	13.8	6.6	20.4	93.2	2.1
2008	59.5	7.1	66.6	12.6	6.2	18.8	85.5	2.2
2009	46.1	4.9	51.0	9.6	5.7	15.3	66.2	4.5
2010	45.0	2.2	47.2	9.3	5.2	14.5	61.7	1.0
2011	43.8	2.6	46.4	11.2	6.1	17.3	63.7	1.5
2012	39.8	(d) 1.8	41.5	10.3	4.5	14.8	56.4	1.7
2013	41.4	(d) 1.9	43.4	10.5	4.1	14.6	58.0	1.3
2014	44.8	(d) 2.0	46.8	11.3	3.0	14.3	61.2	2.4
2015	(e) 48.6	2.5	51.1	(c) 13.2	2.2	15.4	66.4	4.1
2016	(e) 48.9	2.4	51.2	(c) 14.1	2.8	16.8	68.1	2.0
2017	(e) 47.5	2.6	50.1	(c) 14.3	3.1	17.4	67.5	1.6
2018	(e) 48.9	3.2	52.1	(c) 13.7	4.1	17.8	69.9	2.0
2019	(e) 45.8	(d) 2.9	48.7	(c) 13.4	4.7	18.1	66.8	3.9

Sources:

- (a) Office for National Statistics (to 2014 only).
- (b) Department of Enterprise, Trade & Investment; Department of Economy.
- (c) Crown Estate.
- (d) BGS estimate.
- (e) Trade Association reported figures minus marine-dredged landed at GB ports

- (f) These figures for marine-dredged sand and gravel used for beach replenishment and contract fill may be included in home market production, and have therefore not been included in the totals.

Great Britain production of sand and gravel (a) by region 1984–2019

Thousand tonnes

Year	North East (b)	North West (c)	Yorks. & the Humber	West Midlands	East Midlands	East of England (d)	South East (e)	South West	England	Wales	Scotland	Great Britain
1984	3 062	4 080	4 680	10 827	10 604	6 934	38 862	7 010	86 060	3 437	10 178	99 675
1985	2 717	3 823	4 537	10 728	10 609	7 540	39 930	6 981	86 865	3 420	11 320	101 605
1986	2 863	4 036	4 686	10 486	11 743	7 547	42 192	7 152	90 706	4 083	10 710	105 498
1987	2 932	4 006	4 780	11 095	13 348	8 306	43 563	8 495	96 525	4 793	10 311	111 629
1988	3 291	4 156	5 306	14 138	15 603	11 361	50 970	9 843	114 667	4 734	10 753	130 154
1989	3 802	4 709	5 722	14 020	15 892	10 145	51 208	9 142	114 640	4 588	12 004	131 232
1990	3 951	4 641	5 485	12 581	14 051	8 762	42 516	7 559	99 547	3 990	12 634	116 172
1991	3 017	4 243	4 960	10 698	12 683	7 288	33 318	6 045	82 253	3 439	12 226	97 918
1992	2 732	3 894	4 028	9 976	12 072	6 456	28 590	6 171	73 290	3 205	11 774	88 898
1993	2 856	4 028	4 539	10 345	12 364	5 962	28 600	6 138	74 833	3 278	11 359	89 470
1994	3 268	4 843	4 907	12 207	12 860	6 947	31 140	6 765	82 937	3 312	11 423	97 672
1995	3 086	4 529	4 333	10 722	11 556	6 550	28 046	6 684	75 506	3 260	10 889	89 656
1996	2 909	3 792	3 923	9 633	10 827	5 623	26 485	5 790	68 983	3 111	9 904	81 997
1997	3 109	4 294	4 041	9 966	10 899	5 899	29 154	6 054	73 416	3 050	9 900	86 366
1998	3 056	3 579	4 381	9 721	10 416	5 979	29 637	6 166	72 935	2 959	10 074	85 968
1999	3 117	3 801	4 872	9 901	10 216	6 395	30 821	6 016	75 139	3 039	10 031	88 209
2000	2 003	4 003	4 559	9 879	10 253	15 637	22 553	7 385	76 272	2 939	10 022	89 234
2001	1 566	3 402	5 171	9 894	9 716	15 694	22 004	7 126	74 572	2 886	10 753	88 210
2002	1 344	3 890	4 999	9 159	9 608	15 317	19 872	7 131	71 320	2 758	8 643	82 721
2003	1 254	5 220	4 770	9 590	9 842	14 381	17 915	6 413	69 385	2 733	8 103	80 221
2004	1 576	3 992	5 197	9 401	10 906	15 461	19 885	8 065	74 482	3 120	8 455	86 057
2005	1 575	3 674	5 248	9 250	9 235	15 561	19 362	6 934	70 838	2 746	8 808	82 392
2006	1 471	3 599	5 016	9 396	8 979	13 588	20 194	6 793	69 035	2 615	8 592	80 242
2007	1 411	3 592	5 098	10 025	8 485	13 283	18 442	6 801	67 137	2 339	9 025	78 501
2008	1 288	2 813	5 014	10 476	7 477	12 060	16 582	5 960	61 669	2 361	8 097	72 127
2009	1 110	2 121	3 235	6 397	5 798	9 980	13 211	4 677	46 529	1 668	7 512	55 709
2010	1 150	1 841	3 195	6 074	5 503	9 711	13 145	4 714	45 332	1 633	7 365	54 330
2011	...	...	3 441	6 418	...	...	...	...	47 039	1 610	6 366	55 015
2012	...	...	3 191	...	...	...	...	...	42 909	1 364	5 772	50 044
2013	...	...	3 079	...	...	...	...	...	45 709	1 305	4 911	51 925
2014	...	...	...	...	...	...	...	...	49 470	1 548	5 111	56 129
2015	1 613	2 843	2 636	5 996	6 511	12 937	17 819	3 707	54 062	2 076	5 670	61 809
2016	1 390	3 121	2 555	5 948	6 692	13 593	18 042	3 432	54 773	1 943	6 238	62 954
2017	1 872	2 788	2 489	6 166	6 046	13 483	17 964	3 491	54 299	1 654	5 859	61 811
2018	1 935	3 132	2 803	6 160	6 153	14 027	18 041	3 231	55 481	1 517	5 599	62 597
2019	2 013	2 813	2 320	6 002	6 097	13 668	16 122	3 045	52 078	1 584	5 548	59 210

(a) Including marine-dredged material landed at GB ports.

(b) From 2000, excludes Cumbria.

(c) From 2000, includes Cumbria.

(d) From 2000, includes Essex, Hertfordshire and Bedfordshire.

(e) Includes London. From 2000, excludes Essex, Hertfordshire and Bedfordshire.

Sources: For years to 2014: Office for National Statistics.

For years from 2015: GB industry via trade association.

Sandstone

United Kingdom summary 2015–2019

Commodity	2015	2016	2017	2018	2019
Tonnes					
Sandstone – see Building and dimension stone					
<i>Production</i>

Selenium

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Selenium										
<i>Imports</i>										
Elemental	457	325	238	244	261	6 864	2 575	1 464	2 284	2 297
<i>Exports</i>										
Elemental	221	214	46	23	57	5 562	3 029	1 065	655	1 063

Silica sand

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Silica sand										
<i>Production (a) (b)</i>										
	3 822 107	4 251 219	5 051 461	4 890 490	4 443 029					
<i>Imports</i>										
	140 865	111 060	154 051	139 980	203 569	9 002	9 900	11 974	10 545	12 355
<i>Exports</i>										
	61 234	63 227	91 001	83 315	270 849	5 638	4 222	4 012	3 948	4 006

(a) Silica sands for glass making, moulding and other non-constructional uses.

(b) Source: 2015-2017 and 2019 Office for National Statistics, 2018 comprehensive survey by the Silica and Moulding Sands Association and BGS

Silicon

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Silicon										
<i>Imports</i>										
Elemental silicon-										
Containing not less than										
99.99% silicon	32 614	1 372	889	321	235	102 477	22 681	18 812	17 812	26 406
Other	73 405	88 450	97 083	100 076	79 786	121 952	141 137	161 849	192 025	154 752
Ferro-silicon	38 385	32 652	34 399	39 958	29 766	30 672	25 316	33 554	43 505	31 154
Ferro-silico-manganese	45 039	35 044	31 735	35 815	35 215	25 847	18 092	30 286	30 865	29 138
Ferro-silico-magnesium	844	209	309	457	376	557	187	296	326	407
Ferro-silico-chrome	402	47	12	1	18	612	82	55	12	34
Doped silicon	366	1 112	279	217	140	60 564	59 871	55 454	43 301	40 628
<i>Exports</i>										
Elemental silicon-										
Containing not less than										
99.99% silicon	2 914	2 168	1 012	7	19	35 655	27 619	13 227	179	316
Other	1 618	2 044	2 408	1 855	1 578	2 628	2 964	3 984	3 367	3 962
Ferro-silicon	1 409	3 676	2 964	2 525	1 526	3 427	5 832	5 499	4 717	3 284
Ferro-silico-manganese	402	789	156	122	178	117	178	188	67	87
Ferro-silico-magnesium	37	68	64	72	83	108	84	85	106	112
Ferro-silico-chrome	474	114	545	89	43	1 154	278	1 269	242	162
Doped silicon	263	181	204	239	262	81 329	87 703	104 774	107 180	114 495

Sillimanite

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Sillimanite										
<i>Imports</i>										
Sillimanite minerals (a)	5 983	6 130	8 526	9 805	8 634	1 767	1 890	2 689	3 054	2 906
Chamotte earth (b)	14 816	12 891	10 865	9 319	9 773	2 756	2 587	2 375	2 008	2 031
Mullite	6 269	5 531	4 656	3 405	3 308	2 305	2 603	2 473	2 264	1 611
<i>Exports</i>										
Sillimanite minerals (a)	198	238	346	648	946	61	80	111	196	378
Chamotte earth (b)	848	871	1 059	973	792	274	303	415	383	330
Mullite	1 010	1 419	2 099	1 994	923	1 377	2 057	2 507	2 570	1 382

(a) Andalusite, kyanite and sillimanite.

(b) Calcined refractory clay including flint clay.

Silver

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Kilograms					£ thousand				
Silver										
<i>Production</i>										
	—	(a) 14	—	—	(b) 130					
<i>Imports</i>										
Ores & concentrates	328	962	7	79	34	260	5 024	2 321	1 511	1 250
Waste & scrap	6 014	7 366	8 525	10 438	9 743	449 793	538 484	691 254	831 182	1 041 741
Unwrought	3 853	3 890	4 559	3 314	2 931	1 291 673	1 618 543	1 967 094	1 251 044	1 230 635
Partly worked	915	924	830	1 119	321	92 300	132 603	152 233	253 134	46 338
Silver in unrefined lead bullion (c)	360	270	360	230	230					
<i>Exports</i>										
Ores & concentrates	0	18	32	42	2	14	1 672	1 386	2 070	175
Waste & scrap	8 537	10 614	10 742	11 640	11 609	254 402	321 037	358 966	311 851	477 268
Unwrought	3 968	1 359	1 340	2 697	(d) 1 600	1 228 992	498 122	581 668	1 015 074	(d) 811 726
Partly worked	262	335	121	231	50	22 669	40 131	41 688	70 451	21 873

(a) Sales

(b) BGS estimate

(c) BGS estimates of silver content of unrefined lead bullion imported

(d) BGS estimates, based on known imports into certain countries

Slate

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Slate										
<i>Production</i> (a)	760 000	780 000	820 000	820 000	160 000					
<i>Imports</i>										
Unworked (b)	36 682	48 468	77 562	53 167	36 766	8 577	11 050	18 666	16 544	13 914
Roofing and wall tiles	145 770	150 190	135 458	127 934	142 175	53 177	59 568	59 058	60 586	65 597
Other worked slate (c)	27 735	27 666	28 340	30 327	22 262	11 346	12 230	13 153	14 104	11 093
<i>Exports</i>										
Unworked (b)	45 598	27 753	68 360	101 972	92 960	1 818	1 207	1 286	2 460	2 136
Roofing and wall tiles	7 579	7 593	6 631	5 656	6 311	4 800	4 620	4 570	4 187	4 248
Other worked slate (c)	5 941	10 970	6 654	7 664	2 549	3 209	3 298	2 736	2 681	1 721

(a) BGS estimate.

(b) Including roughly split or squared.

(c) Including articles of slate or agglomerated slate

Strontium

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Strontium										
<i>Imports</i>										
Carbonate	135	176	196	219	225	124	153	146	166	164
<i>Exports</i>										
Carbonate	41	20	0	0	1	42	87	4	28	107

Sulphur

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Sulphur										
<i>Production</i> (a)	135 000	133 000	133 000	129 000	130 000					
<i>Imports</i>										
Sulphur-										
Crude	281	4 629	8 584	175	14 098	191	1 083	1 807	276	754
Refined	7 212	10 574	6 403	7 067	4 746	4 837	4 709	4 791	4 250	2 422
Sublimed, colloidal etc	7 547	328	261	267	248	1 655	423	349	304	305
<i>Exports</i>										
Sulphur-										
Crude	14 261	5 426	16 695	14 895	1 526	515	748	1 272	609	124
Refined	19 629	46 997	30 480	11 136	23 664	3 884	5 004	3 684	1 753	2 648
Sublimed, colloidal etc	108	92	87	57	55	208	97	141	73	112

(a) Produced from oil refineries.

Talc

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Talc										
<i>Production</i>	5 430	2 997	3 218	1 640	3 131					
<i>Imports</i>	48 998	50 671	50 575	47 384	51 818	15 683	16 101	16 223	15 575	15 851
<i>Exports</i>	4 590	5 557	3 264	2 759	2 027	1 469	1 901	1 516	1 839	1 715

Tantalum and Niobium

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Tantalum and Niobium										
<i>Imports</i>										
Ferro-niobium	1 038	682	6 921	870	741	17 038	11 407	13 123	13 189	14 016
Tantalum	164	82	83	129	195	15 314	10 682	13 845	22 977	14 464
Niobium (a)	69	163	199	214	136	5 547	5 124	9 298	10 891	6 502
<i>Exports</i>										
Ferro-niobium	109	34	63	42	37	1 608	541	1 091	1 039	583
Tantalum	66	8	21	56	86	6 013	2 007	3 877	9 544	13 957
Niobium (a)	28	37	48	66	91	2 714	4 618	12 526	8 063	2 299

(a) Including rhenium.

Tellurium

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Tellurium										
<i>Imports</i>	6	22	1	0	1	218	440	97	31	102
<i>Exports</i>	3	9	2	1	0	335	346	117	22	28

Tin

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2017	2017	2018	2019
	Tonnes					£ thousand				
Tin										
<i>Production</i>	—	160	255	(a) 230	—					
<i>Consumption</i>										
Refined	1 080	1 080	1 080	1 080	1 080					
<i>Imports</i>										
Concentrates	0	—	—	—	25	3	—	—	—	414
Unwrought	4 604	4 049	4 869	5 533	3 440	51 233	50 151	76 307	84 191	52 932
Unwrought alloys	781	669	150	110	120	1 409	3 856	2 412	1 150	1 869
Scrap	1	6	0	18	6	25	35	12	112	42
<i>Exports</i>										
Concentrates	20	158	—	—	—	171	1 215	—	—	—
Unwrought	672	429	224	270	159	8 195	6 183	3 318	4 469	1 940
Unwrought alloys	342	331	465	375	280	3 297	3 423	5 062	4 416	3 504
Scrap	430	525	129	10	99	1 717	730	568	105	402

(a) BGS estimate.

Titanium

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Titanium										
<i>Production</i>										
Titanium dioxide pigment (a)	230 000	280 000	290 000	280 000	270 000					
<i>Apparent consumption (b)</i>										
	88 000	28 000	54 000	53 000	10 000					
<i>Imports</i>										
Titanium minerals	222 510	257 945	256 411	301 584	201 493	114 699	126 312	130 818	159 118	123 008
Scrap	9 547	6 606	9 073	10 251	8 986	20 802	10 573	15 513	18 585	17 391
Unwrought	12 010	10 645	10 889	11 260	10 740	81 936	80 224	95 622	103 222	94 023
Wrought	7 869	6 587	6 574	16 825	8 520	317 016	322 789	357 477	435 014	417 620
Ferro-titanium (t)	391	452	618	463	214	848	866	1 118	1 140	577
Oxides	5 099	4 173	6 070	5 183	4 154	8 877	8 269	14 227	12 819	11 225
Pigments based on titanium dioxide	87 279	48 538	54 569	56 354	60 819	55 191	84 179	116 402	136 956	140 920
<i>Exports</i>										
Titanium minerals	34	8	16	79	4 020	172	136	132	213	3 191
Scrap	5 753	6 058	7 575	7 020	7 632	19 864	16 696	21 014	19 071	23 413
Unwrought	1 556	1 346	1 297	2 064	1 856	15 307	12 605	13 747	22 947	19 879
Wrought	5 872	7 155	7 006	7 143	7 755	295 111	348 075	362 506	334 808	395 658
Ferro-titanium (c)	17 347	14 970	15 304	16 181	13 143	45 600	29 774	43 114	43 019	33 972
Oxides	3 088	3 429	3 483	628	1 258	4 815	5 577	6 458	2 529	3 306
Pigments based on titanium dioxide	282 219	225 545	236 573	225 507	218 722	177 733	367 468	464 829	489 145	473 943

(a) BGS estimates

(b) BGS estimates; see explanatory notes.

(c) Including ferro-silico-titanium.

Tungsten

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Tungsten										
<i>Production</i>										
	195	923	1 370	(a) 1 240	—					
<i>Imports</i>										
Ores & concentrates	69	5	12	9	18	345	235	284	331	873
Scrap	1 075	1 590	1 425	1 659	1 191	14 366	15 519	22 117	26 222	17 414
Unwrought	236	431	218	275	214	5 290	5 507	5 956	9 171	6 407
Wrought	171	145	152	59	99	5 762	5 574	4 933	5 744	5 149
Ferro-tungsten (b)	45	28	65	82	47	648	434	1 233	1 835	895
Carbide	1 857	1 607	1 848	1 475	540	34 453	37 191	54 755	53 191	17 738
Tungstates	1	3	6	9	10	114	111	194	155	313
Oxides and hydroxides	1	1	1	2	1	43	96	72	225	135
<i>Exports</i>										
Ores & concentrates	316	1 926	—	—	—	2 223	11 115	—	—	—
Scrap	1 266	1 636	1 812	1 674	1 806	15 826	14 646	21 684	23 526	18 281
Unwrought	93	73	94	103	118	5 481	5 054	5 934	8 236	7 758
Wrought	258	86	76	77	73	6 112	7 458	6 210	6 418	5 994
Ferro-tungsten (b)	11	247	233	118	5	181	665	519	768	180
Carbide	340	26	27	592	147	1 899	1 326	1 928	3 571	5 993
Tungstates	0	1	1	0	0	35	23	17	14	4
Oxides and hydroxides	2	6	4	2	2	54	122	57	26	69

(a) BGS estimate

(b) Including ferro-silico-tungsten.

Vanadium

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Vanadium										
<i>Imports</i>										
Unwrought	297	253	284	189	241	5 135	4 235	6 325	7 877	10 640
Oxides	5	18	0	3	0	26	87	2	180	12
Ferro-vanadium	2 269	2 155	5 272	2 236	187	5 608	2 504	8 768	14 901	5 925
<i>Exports</i>										
Unwrought	81	45	105	276	120	1 367	778	2 082	3 853	3 512
Oxides	0	0	2	0	0	5	7	18	12	14
Ferro-vanadium	51	12	15	15	11	289	126	145	512	280

Vermiculite

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Vermiculite										
<i>Imports (a)</i>										
	31 484	28 945	22 333	40 402	34 763	4 477	5 052	6 134	6 343	6 397
<i>Exports (a)</i>										
	600	672	1 089	831	682	387	513	592	456	497

(a) Figures also include perlite and chlorites.

Zinc

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Zinc										
<i>Consumption</i>										
Slab	107 732	97 133	101 190	104 759	91 394					
<i>Imports</i>										
Ores & concentrates	274	1	19	1	0	608	92	214	34	1
Ash and residues	57 850	98 387	120 293	116 235	134 320	1 876	2 540	4 660	7 021	10 418
Unwrought	106 101	94 731	98 731	102 510	93 052	142 096	154 408	234 852	246 358	203 607
Unwrought alloys	5 949	6 822	6 036	6 423	5 916	8 942	11 544	15 387	16 155	14 212
Scrap	590	470	781	676	781	573	554	1 079	1 109	1 204
<i>Exports</i>										
Ores & concentrates	7 788	11 473	16 019	23 192	18 669	3 694	5 281	9 443	12 154	9 494
Ash and residues	6 634	6 068	6 761	5 687	6 605	5 769	6 593	10 865	9 021	8 326
Unwrought	2 874	2 885	3 411	6 016	4 012	4 000	4 401	7 658	14 360	8 664
Unwrought alloys	22 064	23 515	26 724	24 687	20 069	35 554	43 430	67 702	63 093	44 403
Scrap	5 310	2 967	3 294	3 257	5 477	4 775	3 500	6 092	5 766	8 169

Zirconium

United Kingdom summary 2015-2019

Commodity	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Tonnes					£ thousand				
Zirconium										
<i>Apparent consumption</i> (a)	3 000	3 000	3 000	3 000	2 000					
<i>Imports</i>										
Ores and Concentrates (b)	6 265	6 087	7 524	8 060	6 589	6 547	6 121	8 078	11 427	10 681
Scrap	176	121	130	206	184	1 169	795	893	2 048	1 606
Unwrought	146	130	169	88	151	2 958	3 830	5 365	2 821	5 186
Wrought	29	26	50	29	53	1 115	1 351	1 343	2 612	3 642
<i>Exports</i>										
Ores and concentrates	1 200	1 084	1 127	1 461	1 165	2 895	2 504	2 825	3 974	3 349
Scrap	48	46	34	109	152	390	536	448	1 273	1 609
Unwrought	38	13	4	14	2	331	521	378	465	234
Wrought	5	7	4	13	14	791	350	222	559	405

(a) BGS estimates; see explanatory notes.

(b) Mainly zircon.