



British
Geological
Survey



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United Kingdom Minerals Yearbook 2022

Decarbonisation and Resource Management Programme

Open Report OR/23/001



BRITISH GEOLOGICAL SURVEY

DECARBONISATION AND RESOURCE MANAGEMENT PROGRAMME

OPEN REPORT OR/23/001

United Kingdom Minerals Yearbook 2022

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

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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: Consumption = Production (primary and secondary) + Imports - 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. data from Government sources has been used under the Open Government Licence

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)

1973–2021 *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)

2012–2020 *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 2017–2021

£ million

SITC section		2017	2018	2019	2020	2021
Imports (c.i.f.)						
0, 1	Food, beverages, tobacco	45 245.7	46 209.3	47 541.9	47 714.5	44 392.3
2, 4	Basic materials	11 777.4	12 105.8	12 354.1	13 221.3	16 495.8
	of which: Minerals	3 779.3	3 788.0	3 997.4	4 716.2	6 322.1
3	Fuels and related materials	40 085.7	50 415.6	43 971.9	26 183.7	51 096.7
	of which: Mineral-based	39 211.4	49 105.6	42 912.2	25 450.4	48 217.5
	Manufactured goods:					
5, 6	Semi-manufactures	111 349.6	113 457.7	114 301.1	108 078.5	121 976.5
	of which: Mineral-based	38 566.3	40 502.9	41 463.3	37 710.2	49 710.5
7, 8	Finished manufactures	253 386.7	253 603.3	262 977.1	223 801.2	224 905.8
	All traded goods	Total	461 845.1	475 791.8	481 146.2	418 999.2
	of which: Mineral-based		81 557.1	93 396.5	88 373.0	67 876.8
	As % of all traded goods		17.7	19.6	18.4	16.2
						22.7
Exports (f.o.b.)						
0, 1	Food, beverages, tobacco	22 041.0	22 582.9	23 820.6	21 652.0	20 329.2
2, 4	Basic materials	7 602.3	7 841.3	7 404.7	6 991.4	10 175.8
	of which: Minerals	4 681.3	4 959.4	4 721.0	4 598.9	7 334.1
3	Fuels and related materials	27 421.1	35 009.8	31 671.6	20 725.5	25 467.7
	of which: Mineral-based	27 247.8	34 883.7	31 530.8	20 577.1	24 936.3
	Manufactured goods:					
5, 6	Semi-manufactures	86 412.7	86 532.3	86 205.6	86 209.0	87 817.4
	of which: Mineral-based	30 721.5	32 849.0	32 996.1	36 548.0	37 880.1
7, 8	Finished manufactures	177 989.4	180 564.9	190 918.1	149 012.4	150 779.5
	All traded goods	Total	321 466.4	332 531.3	340 020.6	284 590.3
	of which: Mineral-based		62 650.7	72 692.1	69 247.9	61 724.0
	As % of all traded goods		19.5	21.9	20.4	21.7
						23.8

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 2017–2021

£ million (a)

SITC (R3) divisions	2017	2018	2019	2020	2021	
27	Crude minerals and fertilisers:					
	imports	719.4	719.0	746.2	642.8	753.9
	exports	460.7	499.8	481.6	421.4	490.2
	balance	-258.7	-219.1	-264.6	-221.4	-263.7
28	Metal ores and scrap:					
	imports	3 059.9	3 069.0	3 251.2	4 073.3	5 568.2
	exports	4 220.6	4 459.6	4 239.3	4 177.9	6 844.0
	balance	+1 160.7	+1 390.6	+988.1	+104.2	+1 275.8
32	Coal, coke and briquettes:					
	imports	989.3	1 216.4	904.5	586.4	964.6
	exports	76.4	137.2	141.9	157.1	144.2
	balance	-912.9	-1 079.2	-762.7	-429.4	-820.4
33	Petroleum, petroleum products and related materials:					
	imports	29 518.6	37 078.7	35 431.5	20 177.8	27 757.4
	exports	24 322.9	31 929.1	29 223.8	19 138.0	21 472.2
	balance	-5 195.8	-5 149.6	-6 207.7	-1 040.0	-6 285.9
34	Gas, natural and manufactured:					
	imports	8 703.5	10 810.5	6 576.2	4 686.1	19 495.5
	exports	2 848.6	2 817.4	2 165.2	1 281.9	3 319.9
	balance	-5 854.9	-7 993.1	-4 411.0	-3 404.2	-16 175.6
51	Organic chemicals:					
	imports	7 401.3	8 159.0	8 014.8	7 507.3	9 029.6
	exports	7 918.8	8 502.2	8 687.3	9 251.9	7 332.5
	balance	+517.5	+343.2	+672.5	+1 744.6	-1 697.1
52	Inorganic chemicals:					
	imports	2 045.7	2 329.0	2 177.7	1 589.9	2 114.1
	exports	1 515.9	1 611.1	1 673.0	1 988.0	2 717.1
	balance	-529.8	-717.8	-504.6	+398.1	+602.9
56	Manufactured fertilisers:					
	imports	287.1	345.6	372.8	325.5	337.2
	exports	197.3	183.9	193.5	206.5	227.6
	balance	-89.8	-161.7	-179.3	-119.0	-109.6
53–59 (part)	Miscellaneous chemical products:					
	imports	7 094.4	7 627.6	7 914.9	6 897.5	8 614.2
	exports	5 462.8	5 831.5	5 542.9	5 247.8	6 087.6
	balance	-1 631.6	-1 796.1	-2 371.9	-1 649.6	-2 526.6
66	Non-metallic mineral products:					
	imports	5 841.2	5 957.1	5 629.9	2 231.5	5 676.1
	exports	3 754.7	3 643.7	3 789.7	3 927.0	2 385.9
	balance	-2 086.6	-2 313.4	-1 840.2	-1 695.4	-3 290.2
67	Iron and steel:					
	imports	4 827.0	5 280.2	4 692.1	3 269.1	5 273.7
	exports	3 191.3	3 535.5	3 157.0	2 625.0	3 213.6
	balance	-1 635.7	-1 744.7	-1 535.0	-644.1	-2 060.1
68	Non-ferrous metals:					
	imports	10 649.1	10 299.8	12 172.7	13 821.1	18 423.4
	exports	8 246.8	9 118.5	9 463.2	14 656.1	15 491.4
	balance	-2 402.4	-1 181.3	-2 709.4	+835.0	-2 932.0
69	Manufactures of metal:					
	imports (b)	420.4	504.6	488.5	372.7	242.2
	exports (b)	434.0	422.5	489.3	341.1	344.4
	balance	+13.6	-82.2	-0.8	-31.67	102.2
96	Coin other than gold:					
	imports	5.4	4.0	5.5	7.1	36.0
	exports	14.9	9.7	9.4	15.9	37.7
	balance	+9.5	+5.8	+3.9	+8.7	1.7
	Total (excluding gold)					
	imports	81 562.5	93 400.5	88 378.5	67 883.8	104 286.1
	exports	62 665.6	72 701.8	69 257.1	61 739.9	70 108.3
	balance	-18 896.9	-20 698.6	-19 121.2	-6,144.0	-34 177.8

(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 2017–2021

£ million

Mineral	2017	2018	2019	2020	2021
Coal	225	198	132	104	140
Natural gas	6 260	6 900	5 530	4 875	7 110
Natural gas liquids	... (b)	... (b)	... (b)	... (b)	... (b)
Crude petroleum	15 545	21 285	21 085	14 140	15 790
Tin	4	4	—	—	—
Tungsten	31	28	—	—	—
Gold	—	—	2	1	3
Silver	—	—	0	0	0
Other non-ferrous metals	0	0	0	0	0
Sand and gravel	859	907	937	754	866
Limestone and dolomite	} (c) 1 476	(c) 1 587	(c) 1 592	(c) 1443	(c) 1759
Igneous rock					
Sandstone					
Chalk					
Clay and shale	28	23	23	15	20
China clay	133	128	142	97	127
Ball clay	61	63	52	48	61
Salt	95	109	92	90	111
Silica sand	82	88	90	96	92
Potash	45	46	0	0	0
Polyhalite	63	50	57	63	71
Fluorspar	1	2	4	4	7
Gypsum and anhydrite	18	20	22	22	46
Miscellaneous minerals	43	41	29	28	24
Total	24 969	31 479	29 789	21 780	26 228
At 2019 constant prices					
Coal	234	202	132	98	133
Oil and gas	22 690	28 760	26 615	18 058	21 686
Metals	36	33	2	1	4
Construction and industrial minerals	3 022	3 127	3 040	2 526	3 015
Total	25 982	32 121	29 789	20 683	24 837

(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) 2017–2021

£ million

	2017	2018	2019	2020	2021
Production					
Mining and quarrying					
Mining and quarrying of energy producing materials					
Mining of coal and lignite	271	193	158	89	65
Extraction of crude petroleum and natural gas	13 516	19 301	18 202	11 448	13 990
Other mining and quarrying	1 590	1 917	1 924	1 983	2 442
Total mining and quarrying (b)	16 558	22 682	21 777	14 629	17 663
All industries	1 860 286	1 925 435	2 000 157	1 903 575	2 105 014
of which: minerals related (%)	0.9	1.2	1.1	0.8	0.8

(a) At current basic prices.

Source: Office for National Statistics.

(b) 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 2017–2021

Thousand tonnes

Mineral	2017	2018	2019	2020	2021
Coal:					
Deep-mined	20	24	99	107	94
Opencast	3 021	2 758	2 492	1 567	960
Other (a)	—	—	—	—	—
Natural gas and oil:					
Methane (oil equivalent)					
Colliery	35	33	31	25	26
Onshore	191	219	325	220	111
Offshore	39 790	38 574	37 182	37 561	31 186
Crude oil					
Onshore	836	1530	1414	1417	1273
Offshore	42 349	46 318	47 930	44 241	36 966
Condensates and other (b)					
Onshore	14	67	63	55	51
Offshore	3 432	3 272	3 081	3 272	2 574
Non-ferrous ores (metal content):					
Tin	0.3	0.2	—	—	—
Tungsten	1.4	1.2	—	—	—
Lead (e)	0.1	0.1	0.2	0.1	0.1
Gold (kg)	—	—	50	28	79
Silver (kg)	—	—	130	100	400
Clay and shale (c)	5 215	4 341	4 529	2 952	4 008
Chalk (c)					
Igneous rock (f) (g)					
Limestone (excluding dolomite)	(l) 125 742	129 998	(l) 129 600	(l) 118 100	(i) 125 900
Dolomite (excluding limestone)					
Sandstone					
Slate (h)	(e) 820	(e) 820	(e) 160	(e) 160	(e) 170
Sand and gravel:					
Land	50 143	52 065	(l) 47 600	(l) 41 140	(l) 46 008
Marine (i)	17 402	17 817	18 088	16 427	18 569
Ball clay (sales) (e)	850	867	738	696	945
Barytes	55	(e) 50	(e) 46	(e) 46	(e) 27
China clay (sales) (j) (e)	970	996	715	635	735
Fireclay (c)	...	...	...	...	...
Fluorspar (e)	11	11	14	15	15
Gypsum (natural) (e)	1 300	1 400	1 600	1 300	2 400
Peat (000 m ³)	...	...	...	...	...
Potash (k)	216	210	—	—	—
Polyhalite	500	400	632	709	789
Salt	2 362	3 430	2 378	2 328	2 688
Silica sand	5 051	4 890	5 136	5 337	4 245
Talc	3	2	3	1	1

(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): 2017: 105; 2018: 122; 2019: 111; 2020: 92; 2021: 104 and Jersey: 2017: 222; 2018: 240; 2019: 250; 2020: 240; 2021: 230.

(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 2017–2021

Thousand tonnes

Mineral	2017	2018	2019	2020	2021
Coal:					
Deep-mined	20	10	1	1	1
Opencast	1 000	900	600	433	25
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	0.3	0.2	—	—	—
Tungsten	1.4	1.2	—	—	—
Lead (c)	0.1	0.1	0.2	0.1	0.1
Gold (kg)	—	—	—	—	—
Silver (kg)	—	—	—	—	—
Clay and shale (d)	...	...	...	...	...
Chalk					
Igneous rock					
Limestone (e)					
Dolomite (f)	(g) 78 961	(g) 82 296	(g) 83 014	(g) 76 277	(g) 88 321
Limestone and dolomite					
Sandstone					
Sand and gravel:					
Land					
Marine (h)	54 299	55 481	50 480	44 137	50 328
Slate (i)	...	...	...	...	...
Ball clay (sales) (c)	850	867	738	696	945
Barytes	...	...	...	...	...
China clay (sales) (j) (c)	970	996	715	635	735
Fireclay	...	...	...	...	...
Fluorspar (c)	11	11	14	15	15
Gypsum (natural) (c)	1 300	1 400	1 600	1 300	2 400
Peat (000 m ³)	...	...	...	...	...
Potash (k)	216	210	—	—	—
Polyhalite	500	400	635	709	789
Salt	...	...	...	...	...
Silica sand	...	4 235	...	...	...

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

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

(c) BGS estimate.

(d) Including potter's clay.

(e) Including dolomite for constructional uses.

(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) Excluding building stone

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

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

(j) Dry weight.

(k) Marketable product (KCI).

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

Wales production of minerals 2017–2021

Thousand tonnes

Mineral	2017	2018	2019	2020	2021
Coal:					
Deep-mined	0	10	100	106	93
Opencast	1 200	1 000	1 100	1 073	935
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					
Limestone (c)					
Dolomite (d)	(e) 12 319	(e) 12 711	(e) 12 832	(e) 12 448	(e) 14 072
Limestone and dolomite					
Sandstone					
Sand and gravel:					
Land	1 654	1 517	1 810	1 830	1 899
Marine					
Slate (f)	...	...	...	...	...
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) Excluding building stone

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

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

Scotland production of minerals 2017–2021

Thousand tonnes

Mineral	2017	2018	2019	2020	2021
Coal:					
Deep-mined	—	—	—	—	—
Opencast	800	600	400	167	—
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)	—	—	—	—	72
Silver (kg)	—	—	—	—	360
Clay and shale	...	...	...	...	...
Igneous rock	...	...	...	...	...
Limestone (c)	}	(e) 22 331	(e) 23 409	(e) 19 105	(e) 23 480
Dolomite (d)					
Limestone and dolomite					
Sandstone					
Sand and gravel (land-won)	5 859	5 599	5 630	4 758	5 240
Slate (f)	...	...	...	...	...
Barytes	...	...	...	...	...
Fireclay	...	...	...	...	...
Peat (000 m ³)	...	...	...	...	...
Silica sand	...	655	...	...	...
Talc	3	2	3	1	1

(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) Excluding building stone

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

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 2017-2021

Thousand tonnes

	2017	2018	2019	2020	2021
Northern Ireland (d)					
Gold (kg)	0	0	(c) 50	28	7
Silver (kg)	0	0	(c) 130	(c) 100	(c) 40
Lead (tonnes)	0	0	(c) 50	(c) 50	(c) 10
Limestone	2 323	3 158	2664	2 861	...
Sand and gravel	2 606	3 175	2290	2 501	...
Basalt and igneous rock (a)	3 227	4 164	3162	3 109	...
Sandstone	3 722	5 339	4515	4 346	...
Granite	...	...	...	...	...
Clay and shale	...	...	...	...	...
Others (b)	795	1 565	752	782	...
Total	12 673	17 401	13 384	13 599	...
Isle of Man					
Limestone	48	41	54	46	39
Sand and gravel	109	108	92	111	105
Igneous rock	86	86	85	88	90
Slate	39	39	38	64	58
Total	281	274	269	309	292
Guernsey					
Igneous rock	105	122	111	92	104
Jersey					
Igneous rock (c)	222	240	250	240	230
Sand and gravel	47	52	59	54	39

(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: 2017, 90; 2018, 114 and 2019, 77; 2020, 85.

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	—	—	—	—	—	—	—	—	19	19	—	—	—	—	—	19
Barytes	—	—	—	1	—	—	—	—	—	1	—	2	—	—	—	3
Chalk	—	13	—	3	—	11	—	18	1	46	—	—	—	4	—	50
China clay	—	—	—	—	—	—	—	—	15	15	—	—	—	—	—	15
China clay waste	—	—	—	—	—	—	—	—	8	8	—	—	—	—	—	8
Clay & shale	5	21	16	16	22	4	—	19	9	112	9	3	—	6	—	130
Coal, underground	1	—	—	—	—	—	—	—	—	1	2	—	—	—	—	3
Coal, opencast	—	—	—	—	—	—	—	—	—	0	1	—	—	—	—	1
Coalbed methane	—	—	1	—	—	—	—	—	—	1	—	—	—	—	—	1
Fireclay	—	4	1	1	1	—	—	—	—	7	—	—	—	—	—	7
Flint	—	1	—	—	—	5	—	2	—	8	—	—	—	—	—	8
Fluorspar	1	—	—	2	—	—	—	—	—	3	—	—	—	—	—	3
Gold	—	—	—	—	—	—	—	—	—	0	3	1	—	1	—	5
Gypsum (c)	—	—	1	4	1	—	—	1	—	7	—	—	—	—	—	7
Igneous & metamorphic rock	8	—	3	7	3	—	—	—	13	34	17	129	2	50	4	236
Iron ore - ironstone	—	—	—	—	—	—	—	3	—	3	—	—	—	—	—	3
Lead	—	—	—	1	—	—	—	—	—	1	—	—	—	1	—	2
Limestone / dolomite	15	34	14	58	7	3	—	11	88	230	36	15	2	20	—	303
Marble	—	—	—	—	—	—	—	—	—	0	—	1	—	—	—	1
Natural gas	—	12	1	3	—	—	—	1	1	18	—	—	—	—	—	18
Oil	—	1	—	82	—	—	—	23	4	110	—	—	—	—	—	110
Peat	—	1	4	—	—	—	—	—	38	43	1	18	—	8	—	70
Polyhalite	—	1	—	—	—	—	—	—	—	1	—	—	—	—	—	1
Salt	—	1	3	—	—	—	—	—	—	4	—	—	—	1	—	5
Sand	3	8	6	—	4	15	1	31	12	80	1	20	1	3	1	106
Sand & gravel	6	21	19	35	32	84	9	41	21	268	15	109	1	66	—	459
Sandstone	14	44	35	16	18	3	—	6	21	157	19	51	—	35	—	262
Serpentine	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	1
Silica sand	—	2	6	1	—	8	—	7	1	25	—	4	—	—	—	29
Silver	—	—	—	—	—	—	—	—	—	0	—	—	—	1	—	1
Slate	—	—	10	—	—	—	—	—	11	21	13	—	2	1	—	37
Slate waste	—	—	1	—	—	—	—	—	—	1	8	—	—	—	—	9
Talc	—	—	—	—	—	—	—	—	—	0	—	1	—	—	—	1
Tin	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	2
Tungsten	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	1
Total	53	170	121	239	91	133	10	163	266	1 246	126	354	8	197	5	1 936

(a) As at January 2023.

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 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Carats					£ thousand				
Abrasives										
<i>Imports</i>										
Natural abrasives										
Industrial diamonds	2 705 618	5 418 781	3 040 649	1 646 227	2 608 956	11 585	11 982	41 067	7 634	8 648
Tonnes										
Dust and powder of precious and semi-precious stones										
	31	45	34	30	37	10 898	9 233	10 169	7 163	8 480
Pumice	2 699	2 131	1 550	1 280	1 301	863	717	654	648	570
Other	11 609	9 123	11 851	6 532	7 525	3 455	2 822	3 533	1 845	1 968
Carats										
<i>Exports</i>										
Natural abrasives										
Industrial diamonds	1 156 793	1 019 188	1 160 545	503 444	561 027	9 719	6 695	8 079	6 619	10 496
Tonnes										
Dust and powder of precious and semi-precious stones										
	15	15	16	17	29	13 694	11 049	9 983	7 996	9 273
Pumice	328	500	304	403	585	301	431	323	553	510
Other	1 274	1 414	852	809	732	1 008	839	1 020	913	588

Aggregates

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Aggregates										
<i>Production*</i>										
Sand and gravel (a)	67 545 000	69 882 000	65 660 000	(c) 57 571 000	(c) 64 576 000					
Crushed rock (b)	125 742 000	129 998 000	(c)129 636 000	(c) 118 146 000	(c) 125 874 000					
Total	193 287 000	199 881 000	(c)195 296 000	(c) 174 813 000	(c) 190 450 000					
<i>Imports</i>										
Natural aggregates-										
Sand and gravel	631 921	488 876	465 526	348 107	386 203	18 704	19 951	25 586	22 491	15 299
Crushed rock (d)	356 707	270 077	209 381	216 573	697 653	18 168	17 231	14 270	12 547	36 695
Total	988 628	758 953	674 907	564 680	1 083 856	36 872	37 182	39 856	35 038	51 995
<i>Exports</i>										
Natural aggregates-										
Sand and gravel (e) (f)	2 409 597	2 841 913	3 257 033	3 331 874	1 622 240	26 473	28 994	40 017	31 407	23 087
Crushed rock	4 353 247	4 419 084	3 464 967	3 808 212	3 416 197	35 901	38 266	36 256	34 050	36 025
Total	6 762 844	7 260 997	6 722 000	7 140 000	5 038 437	62 374	67 260	76 273	65 457	59 112

* 2017-2021 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 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): 2017: 3 127 371; 2018: 4 110 142; 2019: 4 672 369 2020: 4 344 873 and 2021: 4 314 653.

Aluminium

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Aluminium										
<i>Production</i>										
Unwrought-										
Primary	48 000	44 400	39 400	35 700	37 571					
Secondary (a)	148 800	148 800	148 800	127 200	120 000					
<i>Consumption</i>										
Unwrought-										
Primary (a)	241 200	180 000	180 000	171 000	180 000					
Secondary (a)	320 400	148 800	148 800	139 200	144 000					
<i>Imports</i>										
Ash and residues	218	850	995	2 602	2 046	244	700	783	1 631	714
Unwrought	162 676	183 402	161 909	120 039	145 853	265 288	316 091	255 085	172 585	265 205
Unwrought alloys	72 035	68 304	(a) 94 900	(a) 84 100	(a) 93 300	128 121	127 711	123 495	102 631	168 695
Scrap	135 710	124 866	100 274	98 190	87 998	123 991	135 632	97 739	81 369	109 849
<i>Exports</i>										
Ash and residues	222	1 000	2 462	14 814	77 568	292	1 449	763	1 343	23 645
Unwrought	4 614	8 567	2 658	4 841	2 544	8 609	18 677	4 651	7 378	3 952
Unwrought alloys	270 009	262 847	(a) 249 600	(a) 202 500	(a) 251 200	470 822	481 954	400 900	314 918	481 111
Scrap	370 082	444 339	477 842	436 146	695 611	439 567	499 753	462 025	378 103	559 601

(a) Estimate.

Aluminium compounds

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Aluminium compounds										
<i>Imports</i>										
Oxide (alumina)	140 836	116 257	126 979	93 915	48 112	112 740	103 102	64 364	37 316	30 363
Hydroxide	51 690	60 463	95 714	74 557	84 775	26 481	25 584	31 542	28 039	27 712
Fused Oxide (a)	30 185	32 971	28 625	21 055	17 733	17 586	22 689	20 131	15 311	15 623
Fluorides	736	854	823	587	2 217	637	828	1 169	794	4 621
<i>Exports</i>										
Oxide (alumina)	3 365	3 824	4 156	3 411	3 975	3 200	3 441	3 741	2 881	4 287
Hydroxide	(b) 800	(b) 2 500	(b) 3 500	1 387	169	(b) 900	(b) 1 200	1 204	865	507
Fused Oxide (a)	10 427	13 911	13 469	10 044	8 074	7 489	10 255	10 236	7 874	12 076
Fluorides	0	67	225	458	73	9	72	136	240	52

(a) Artificial corundum.

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

Antimony

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Antimony										
<i>Imports</i>										
Ores & concentrates	1	—	—	0	0	6	1	—	1	0
Metal	189	259	290	191	205	1 714	1 967	2 275	1 444	1 467
Oxide	1 690	1 759	2 468	1 375	1 517	9 978	10 104	7 555	5 572	9 396
<i>Exports</i>										
Ores & concentrates	—	—	—	0	—	—	—	—	0	—
Metal	660	537	521	422	535	5 688	5 572	5 169	3 980	5 388
Oxide	78	89	151	95	70	574	583	1 078	525	576

Arsenic

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Arsenic										
<i>Imports</i>										
Elemental	3	3	5	3	1	289	445	282	247	338
<i>Exports</i>										
Elemental	2	1	4	2	1	21	20	28	10	5

Asbestos

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Asbestos										
<i>Imports</i>										
Fabricated asbestos	2	21	2	5	44	75	733	76	77	133
Friction material with a basis of asbestos etc.	5 971	6 908	6 910	5 010	5 187	43 015	42 202	35 833	31 198	30 444
Articles of asbestos cement etc.	189 683	189 178	204 437	44 214	56 504	80 820	78 153	86 157	20 301	25 815
<i>Exports</i>										
Fabricated asbestos	119	57	157	109	160	918	2 161	1 758	988	1 984
Friction material with a basis of asbestos etc.	2 384	2 713	1 837	1 456	1 507	72 960	58 410	27 199	25 019	35 230
Articles of asbestos cement etc.	19 260	15 229	18 260	7 182	6 144	11 111	8 674	11 415	3 858	3 744

Asphalt, natural

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Asphalt, natural										
<i>Imports</i>	27 354	22 628	72 253	79 384	140 907	6 236	4 529	4 040	1 315	1 124
<i>Exports</i>	47 063	47 147	41 974	39 264	7 330	2 054	2 418	3 371	2 126	842

Ball clay

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Ball clay										
<i>Production (sales) (a)</i>	850 000	867 000	738 000	696 000	945 000					
<i>Imports</i>	4 534	4 588	3 247	4 591	4 670	1 990	1 821	1 437	2 402	2 765
<i>Exports</i>	643 779	656 940	558 961	527 551	716 091	46 483	48 050	44 850	39 451	61 689

(a) BGS estimates

Barytes

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Barytes										
<i>Production</i>										
Barium minerals - Barytes (a)	55 000	50 000	46 000	46 000	27 000					
<i>Imports</i>										
Barium minerals (b)	41 245	58 753	63 552	38 595	44 136	9 142	12 957	12 120	7 983	9 305
<i>Exports</i>										
Barium minerals (b)	17 572	14 284	13 205	13 221	7 716	5 305	4 781	4 448	4 522	2 906

(a) BGS estimate

(b) Mainly barytes with some witherite.

Bauxite

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Bauxite										
<i>Imports (a)</i>	14 029	33 816	44 135	47 948	30 697	5 459	10 434	12 802	9 351	10 366
<i>Exports (a)</i>	4 495	5 184	5 122	4 100	4 925	1 824	2 490	2 621	2 175	2 912

(a) Excluding refractory grade bauxite.

Bentonite

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Bentonite										
<i>Imports</i>	128 865	142 665	121 451	138 782	126 738	13 396	14 806	16 443	21 909	17 200
<i>Exports</i>	31 921	30 501	27 527	24 869	18 036	15 119	21 262	21 216	19 043	14 702

Beryllium

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Beryllium										
<i>Imports</i>										
Metal	72	50	9	1	1	2 180	2 177	2 386	3 644	1 364
Oxides and hydroxides	8	13	4	5	2	1 275	1 152	1 092	1 062	516
<i>Exports</i>										
Metal	39	39	9	0	32	959	1 180	272	191	414
Oxides and hydroxides	3	—	2	0	0	55	—	46	2	3

Bismuth

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Bismuth										
<i>Imports</i>										
Metal	53	82	139	210	183	555	706	679	1 041	1 032
<i>Exports</i>										
Metal	210	26	22	20	19	3 872	673	610	509	619

Boron

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Boron										
<i>Imports</i>										
Boron minerals (a)	4 322	5 314	4 234	4 321	5 600	1 289	1 608	1 310	1 334	1 758
<i>Exports</i>										
Boron minerals (a)	459	393	504	504	539	425	401	540	493	501

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

Bricks, blocks and tiles

Great Britain production of bricks, blocks and tiles 2017–2021

Material	2017	2018	2019	2020	2021
Million bricks					
Bricks (all types):	1 877	2 025	2 002	1 427	1 909
Million square metres					
Concrete building blocks:					
Dense aggregate	27	26	25	21	26
Lightweight aggregate	22	21	21	17	20
Aerated concrete	25	23	28	22	28
Total	74	71	74	60	74
Roofing tiles:					
Concrete	26	27	26	16	17

Source: Department for Business Energy and Industrial Strategy

Bromine

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Bromine										
<i>Imports</i>	6 634	6 321	5 095	4 375	4 269	10 707	9 419	8 027	6 026	6 886
<i>Exports</i>	3 202	3 103	1 095	821	932	3 841	4 505	2 435	3 094	2 029

Building and dimension stone

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Building and dimension stone										
<i>Production</i>										
Sandstone	...	...	...	...	...
Igneous rock	...	...	...	...	...
Limestone	...	...	...	...	...
Dolomite	...	...	...	...	...
Total (a)	1 100 000	900 000	1 100 000	900 000	1 200 000					
<i>Imports</i>										
<i>Unworked-</i>										
Marble & other calcareous stone	30 167	33 351	35 478	50 326	76 563	11 745	15 895	11 865	13 467	22 191
Granite (t)	2 363 599	2 953 475	3 197 438	3 426 506	3 983 561	47 786	57 095	63 284	71 258	79 060
Sandstone	398 535	421 809	421 279	427 343	459 602	88 930	87 896	87 513	93 786	133 344
Other stone	109 927	243 198	151 549	90 570	60 918	13 811	11 817	10 833	11 284	16 205
<i>Worked-</i>										
Marble & other calcareous stone	55 704	46 885	55 830	42 766	27 745	49 320	41 948	59 458	40 933	15 827
Granite	91 188	73 114	69 443	51 295	62 799	67 780	55 251	54 037	40 345	57 130
Other stone	23 991	22 516	25 961	44 764	109 924	24 270	22 471	29 027	25 000	60 519
Paving stones and flagstones	272 669	278 317	313 922	346 515	370 649	64 286	64 648	74 254	68 472	115 945
<i>Exports</i>										
<i>Unworked-</i>										
Marble & other calcareous stone	834	1 219	1 265	723	681	465	836	1 225	816	863
Granite	13 915	12 705	11 536	1 747	2 068	2 172	2 361	1 913	573	821
Sandstone	206	669	1 014	111	1 743	73	289	638	105	902
Other stone	208	646	731	445	1 431	225	405	366	266	700
<i>Worked-</i>										
Marble & other calcareous stone	809	831	1 150	1 213	508	3 417	4 246	4 666	3 589	1 314
Granite	1 059	849	689	1 604	870	1 698	1 196	1 330	1 508	1 611
Other stone	6 935	3 089	2 071	1 721	2 361	2 511	1 508	4 968	2 924	1 622
Paving stones and flagstones	3 687	4 992	4 231	7 486	4 633	1 377	1 243	1 223	2 343	2 092

(a) BGS estimates.

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

Cadmium

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Cadmium										
<i>Consumption</i>	10 000	10 000	10 000	10 000	10 000					
<i>Imports</i>										
Metal	252	221	247	170	128	417	557	611	369	1 362
Oxide	96	122	0	41	24	199	316	4	144	89
<i>Exports</i>										
Metal	15	8	66	15	26	172	155	240	100	277

Cement

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Cement										
<i>Production</i>										
Cement, clinker	7 824 000	7 734 000	7 830 000	6 941 000	7 367 000					
Cement, finished	9 359 000	9 198 000	9 079 000	8 046 000	9 008 000					
	Cubic metres									
Ready-mixed concrete	26 063 000	25 693 000	24 701 000	19 420 000	22 163 000					
	Tonnes									
<i>Consumption (home deliveries)</i>										
Finished cement (a)	15 269 000	15 188 000	15 218 000	13 222 000	15 629 000					
<i>Imports</i>										
Portland cement clinkers	532 977	828 093	543 316	223 547	366 366	48 267	51 307	37 736	18 617	32 408
Portland cement	2 422 996	2 464 886	2 879 196	2 615 340	3 513 287	139 185	141 827	172 577	155 385	219 816
Aluminous cement	12 802	14 568	18 652	38 008	65 431	4 174	4 691	7 162	9 688	16 555
Other cement	34 677	37 993	33 569	44 293	119 082	2 697	2 942	2 830	3 134	12 850
<i>Exports</i>										
Portland cement clinkers	23 649	12 106	8 746	14 073	13 945	1 540	915	733	920	1 022
Portland cement	138 181	178 307	150 056	157 854	165 401	15 680	17 427	14 879	14 702	14 623
Aluminous cement	62 746	72 604	62 589	50 621	51 817	30 628	34 471	31 639	24 322	31 200
Other cement	5 591	3 291	2 136	1 934	1 798	2 475	1 942	1 652	1 509	1 560

(a) Great Britain only.

Chalk (see Limestone)

China clay

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
China clay										
<i>Production (sales) (a)</i>	970 000	996 000	715 000	635 000	735 000					
<i>Imports (b)</i>	68 664	86 805	62 837	60 174	69 424	15 752	17 465	15 718	13 580	15 610
<i>Exports (b)</i>	873 633	897 498	643 940	571 714	662 540	119 421	124 057	110 406	100 015	126 864

(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 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Chromium										
<i>Apparent consumption (a)</i>	36 500	38 800	31 700	24 700	29 600					
<i>Imports</i>										
Ores & concentrates	5 460	7 149	7 529	6 096	5 529	1 740	2 903	2 721	1 645	1 619
Ferro-chrome										
Under 4% carbon	7 005	5 744	8 643	4 823	5 007	13 135	14 204	19 915	9 053	9 712
4%-6% carbon	100	23	118	251	94	192	4	157	255	117
Over 6% carbon	34 504	48 375	35 633	30 252	39 393	23 450	51 251	33 417	22 692	39 577
Ferro-silico-chrome	12	1	18	6	19	55	12	34	16	32
Oxides and hydroxides	14 915	15 570	15 458	12 010	12 318	39 143	48 462	40 210	24 012	27 493
Metal	1 227	1 688	1 399	913	1 428	9 311	14 759	10 851	6 300	52 865
<i>Exports</i>										
Ores & concentrates	71	86	864	189	7	124	107	403	94	31
Ferro-chrome										
Under 4% carbon	272	506	487	603	1 464	1 341	2 668	2 886	2 541	441
4%-6% carbon	681	191	271	269	10	416	192	374	215	12
Over 6% carbon	2 169	2 428	1 860	2 310	3 517	2 623	4 464	2 984	3 231	5 066
Ferro-silico-chrome	545	89	43	60	109	1 269	242	162	188	301
Oxides and hydroxides	467	276	193	334	889	1 582	884	843	832	251
Metal	7 153	7 384	8 439	5 820	5 617	63 391	81 265	77 481	44 715	51 693

(a) BGS estimates; see explanatory notes.

Clays

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Clays										
<i>Production</i>										
Clay and shale	5 543 900	4 606 000	4 529 000	2 952 000	4 008 000					
<i>Imports</i>										
Unspecified clays	147 165	144 947	116 176	97 857	87 985	24 266	24 504	18 995	11 956	15 806
<i>Exports</i>										
Unspecified clays	98 227	84 939	75 148	63 703	94 609	9 534	10 378	9 641	9 450	14 153

Source: British Ceramic Confederation

Great Britain production of clay and shale by end-use 2006–2021

Thousand tonnes

Year	Bricks, pipes and tiles	Cement	Lightweight aggregate	Constructional use	Other uses	Total
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
2020	2 952	—	—	—	...	2 952
2021	4 008	—	—	—	...	4 008

(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 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Coal										
<i>Production</i>										
Anthracite	445 000	399 000	510 000	345 000	266 000					
Bituminous	2 596 000	2 383 000	2 081 000	1 328 000	788 000					
<i>Consumption</i>										
	14 439 000	12 059 000	7 991 000	7 080 000	7 279 000					
<i>Imports</i>										
Anthracite	32 416	153 587	73 287	52 152	54 226	6 042	18 620	11 612	7 124	7 098
Bituminous & Other	7 300 751	9 158 720	5 366 022	3 635 890	4 499 086	708 280	918 883	566 732	311 230	463 744
Total	7 333 167	9 312 307	5 439 309	3 688 042	4 553 312	714 322	937 503	578 344	318 354	470 842
Briquettes of Coal	56 251	32 513	16 716	11 302	5 622	7 706	4 714	2 352	1 494	1 103
Lignite (including agglomerated)	1 705	1 640	1 028	352	1 107	355	410	385	209	374
<i>Exports</i>										
Anthracite	88 637	105 285	(a) 114 000	131 609	(a) 140 000	10 207	15 975	17 910	18 362	18 169
Bituminous & Other	374 174	495 995	771 846	1 593 851	1 010 955	44 465	65 915	85 728	109 523	100 664
Total	462 811	601 280	886 146	1 725 460	1 150 955	54 672	81 890	103 638	127 885	118 833
Briquettes of Coal	34 185	35 282	30 140	135 490	15 434	6 012	6 378	5 503	9 802	3 254
Lignite (including agglomerated)	414	366	595	467	263	149	72	151	230	70

(a) BGS estimate.

Cobalt

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Cobalt										
<i>Apparent consumption (a)(b)</i>	1 500	200	1 600	3 000	800					
<i>Imports</i>										
Ore	34	24	42	10	16	106	105	176	24	59
Unwrought	5 114	4 293	3 881	4 903	3 724	89 464	145 115	89 037	91 629	74 350
Wrought	505	627	588	684	250	15 586	24 423	27 929	24 537	15 523
Oxides	166	117	128	85	162	4 043	5 199	2 978	1 109	3 913
Scrap	1 115	1 262	931	478	992	13 216	21 651	10 663	5 089	11 098
<i>Exports</i>										
Ore	16	9	68	70	5	690	307	310	207	225
Unwrought	787	1 451	1 243	1 440	1 193	30 007	39 502	38 117	39 972	41 403
Wrought	1 011	984	1 045	742	1 505	38 045	46 103	65 077	45 942	50 536
Oxides	1 241	878	888	821	940	35 586	38 190	22 650	19 238	32 816
Scrap	1 135	1 535	983	536	754	14 314	29 743	15 137	7 838	11 348

(a) Metal content.

(b) BGS estimates; see explanatory notes.

Coke and breeze

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Coke and breeze										
<i>Production</i>										
Coke oven - coke	1 361 000	1 263 000	1 295 000	1 203 000	1 104 000					
Coke oven - breeze	18 000	17 000	19 000	16 000	150 000					
<i>Consumption</i>										
Coke oven coke	1 764 000	1 554 000	1 705 000	1 741 000	1 899 000					
Breeze	549 000	592 000	613 000	588 000	500 000					
<i>Imports</i>										
Coke from coal	41 871	115 562	162 016	217 304	146 639	10 099	31 264	43 145	37 840	33 568
Coke from lignite	2 269	174	151	174	227	1 335	119	97	117	147
<i>Exports</i>										
Coke from coal	24 892	96 321	81 865	30 043	46 200	5 407	31 543	21 593	6 209	11 538
Coke from lignite	15	0	—	—	0	19	1	—	—	0

Copper

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Copper										
<i>Consumption</i>										
Unwrought-										
Refined	19 032	18 000	18 000	14 400	14 400					
Copper in scrap for direct use (a)	120 000	120 000	120 000	...	...			
<i>Imports</i>										
Ores & concentrates	37	392	112	0	0	161	953	246	13	53
Matte & cement	28	48	47	67	59	155	234	236	265	363
Scrap	32 075	28 199	24 011	23 178	23 533	92 942	85 525	63 858	64 195	85 129
Ash and residues	16	51	133	20	37	27	53	48	25	5
Unwrought-										
Unrefined	35	52	33	18	22	240	406	237	141	215
Refined	21 613	25 091	21 685	20 114	22 504	100 234	122 222	102 540	94 799	154 124
Alloys	5 218	2 591	1 935	1 315	2 343	16 002	15 117	11 934	9 011	14 341
Master Alloys	362	502	439	387	529	1 600	3 103	2 414	1 927	3 611
<i>Exports</i>										
Ores & concentrates	331	2 442	291	44	8	1 432	10 386	1 394	196	42
Matte & cement	1 069	350	4 329	500	125	4 627	2 177	17 509	2 208	995
Scrap	284 990	261 560	341 124	222 899	264 003	782 594	756 078	787 325	691 589	1 203 474
Ash and residues	2 219	4 924	3 196	4 030	1 763	8 444	13 977	10 185	12 828	1 748
Unwrought-										
Unrefined	221	215	302	186	536	4 323	3 890	4 354	3 694	6 066
Refined	20 779	13 043	2 373	1 275	1 336	103 507	69 582	9 950	5 276	8 363
Alloys	7 476	5 303	2 550	3 052	3 133	17 720	15 009	7 765	8 149	19 599
Master Alloys	5 314	5 742	5 289	5 965	364	23 159	26 140	23 516	24 459	3 093

(a) Estimate.

Crushed rock (see also Aggregates)

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Crushed rock										
<i>Production* (a)</i>	125 742 000	129 998 000	(b) 129 636 000	(b) 118 146 000	(b) 125 874 000					
<i>Imports (c)</i>	356 707	270 077	209 381	216 573	697 653	18 168	17 231	14 270	12 547	36 695
<i>Exports</i>	4 353 247	4 419 084	3 464 967	3 808 212	3 416 197	35 901	38 266	36 256	34 050	36 025

* 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 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 1987–2021

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
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	4 165	5 849	9 040	3 775	23 806	632	1 795	21 439	70 501	11 994	19 759	102 254
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	5 468	6 466	9 546	4 919	29 164	104	2 026	25 321	83 014	12 832	23 409	119 255
2020	4 987	7 236	8 856	4 489	26 559	—	—	24 151	76 277	12 448	19 105	107 830
2021	5 519	8 133	10 634	4 925	31 397	—	—	27 714	88 321	14 072	23 480	125 874

(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.

For 2014 and 2019 the Aggregate Minerals Survey

Diamond

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Carats					£ thousand				
Diamond										
<i>Imports</i>										
Unsorted	21 689 101	20 338 927	16 432 540	58 749	78 181	589 370	551 666	442 201	4 539	4 075
Gem-										
Rough	8 848 292	10 125 262	4 050 858	220 464	227 969	577 414	599 550	101 433	16 382	45 701
Cut	305 845	663 678	632 568	296 460	(a) 524 400	680 413	867 945	845 889	431 548	1 015 809
Industrial	2 705 618	5 418 781	3 040 649	1 646 227	2 608 956	11 585	11 982	41 067	7 634	8 648
Dust	28 874 346	25 771 437	29 619 970	30 185 214	35 389 246	10 559	8 806	10 103	7 037	8 264
<i>Exports</i>										
Unsorted	29 614 238	27 062 547	16 369 776	638	2 864	1 115 508	948 380	442 800	172	128
Gem-										
Rough	445 121	272 713	309 700	148 020	124 933	50 147	40 109	47 278	14 618	46 404
Cut	423 553	170 873	267 847	94 037	238 957	548 485	547 734	1 012 823	416 277	558 502
Industrial	1 156 793	1 019 188	1 160 545	503 444	561 027	9 719	6 695	8 079	6 619	10 496
Dust	29 947 667	28 474 520	20 891 380	18 689 126	26 286 686	13 265	10 905	9 740	7 958	9 227

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

Diatomite

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Diatomite										
<i>Imports (a)</i>	15 022	19 288	11 649	11 201	12 120	4 369	4 853	3 877	3 659	3 945
<i>Exports (a)</i>	542	619	315	254	489	421	476	370	222	300

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

Dolomite (see Limestone)

Feldspar

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Feldspar										
<i>Imports</i>										
Feldspar	8 443	7 679	9 461	1 708	7 329	1 314	1 512	1 447	483	1 024
Nepheline-syenite	38 645	36 122	28 872	19 149	22 189	3 491	3 474	3 018	2 129	2 411
<i>Exports</i>										
Feldspar	85	160	71	26	12	25	70	36	21	6
Nepheline-syenite	537	567	446	435	520	113	150	99	102	172

Fireclay

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Fireclay										
<i>Production</i>	...	...	...	...	...
<i>Imports</i>										
Fireclay	6 275	4 970	6 718	6 736	4 980	1 998	1 664	2 465	2 435	2 014
Fireclay bricks etc	3 517	2 192	1 621	2 755	4 061	3 345	1 853	2 133	1 696	4 472
Refractory hollow-ware	1 200	1 140	1 045	1 009	1 117	3 861	3 489	3 555	3 581	3 155
<i>Exports</i>										
Fireclay	1 203	1 415	1 516	1 061	1 027	806	967	1 008	730	655
Fireclay bricks etc	3 836	2 711	2 177	3 634	1 948	5 376	3 014	2 937	3 802	3 332
Refractory hollow-ware	564	525	521	467	465	14 185	15 629	15 480	10 052	10 049

Fluorspar

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Fluorspar										
<i>Production (a)</i>	11 000	11 000	14 000	15 000	15 000					
<i>Imports</i>	3 363	3 705	2 718	1 080	1 041	441	574	977	306	489
<i>Exports</i>	10 809	10 535	14 434	15 053	14 773	2 241	3 876	5 514	5 025	4 743

(a) Estimates

Gas, natural (see Petroleum)

Germanium

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Germanium										
<i>Imports</i>										
Metal	1	0	4	1	1	141	100	407	320	185
<i>Exports</i>										
Metal	14	12	9	5	0	156	203	157	45	37

Gold

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Gold										
<i>Production</i>	—	—	(a) 0	0	0					
<i>Imports</i>										
Waste & scrap	214	308	428	88	2	28 532	21 833	49 992	27 093	13 912
Unwrought (b)	3	4	1	5	3	102 801	130 115	42 001	227 976	142 392
Semi-manufactured	835	625	1 526	1 504	924	26 650 976	19 020 357	55 351 947	68 420 777	38 908 193
<i>Exports</i>										
Waste & scrap	528	532	658	319	25	337 404	348 607	450 731	391 637	255 635
Unwrought (b)	2	1	1	1	0	61 021	14 903	22 562	21 601	3 794
Semi-manufactured	423	788	531	376	716	13 140 230	23 768 398	18 236 861	16 636 174	30 120 223

(a) BGS estimates

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

Granite (see Igneous rock)

Graphite

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Graphite										
<i>Imports</i>										
Natural graphite	3 815	5 357	4 494	7 244	5 961	3 432	4 161	4 058	5 464	5 530
Artificial graphite	10 019	10 583	9 584	9 320	10 278	17 703	24 737	15 997	13 810	14 719
Graphite crucibles etc	158	214	290	213	165	1 145	1 593	2 025	1 355	1 677
<i>Exports</i>										
Natural graphite	1 851	1 687	1 536	2 125	7 684	3 055	2 909	2 669	3 049	2 942
Artificial graphite	30 200	6 569	7 796	6 962	6 039	15 344	11 751	12 705	11 355	10 891
Graphite crucibles etc	5 552	6 390	5 159	4 031	4 926	12 238	15 825	13 252	10 666	11 669

Gypsum

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Gypsum										
<i>Production</i>										
Gypsum, natural (a)	1 300 000	1 400 000	1 600 000	1 300 000	2 400 000					
<i>Imports</i>										
Gypsum	1 523 565	1 506 933	2 116 960	1 564 541	779 576	20 659	20 644	30 036	26 126	15 130
Gypsum (plasters)	820 059	814 303	342 758	453 293	549 818	21 973	24 371	19 848	27 676	27 711
<i>Exports</i>										
Gypsum	9 202	13 692	5 401	21 126	6 555	2 042	2 560	2 174	2 293	2 553
Gypsum (plasters)	26 365	32 011	31 711	26 692	31 440	11 998	14 547	14 642	11 739	15 831

(a) BGS Estimates.

Hafnium

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Hafnium										
<i>Imports</i>										
	22	13	17	7	17	8 194	4 275	7 985	2 939	7 231
<i>Exports</i>										
	93	6	10	3	7	1 362	2 510	2 424	1 330	5 206

Igneous rock

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Igneous rock – see also Building and dimension stone										
<i>Production</i>										
					
<i>Imports</i>										
Granite-										
Worked	91 188	73 114	69 443	51 295	62 799	67 780	55 251	54 037	40 345	57 130
Unworked	2 363 599	2 953 475	3 197 438	3 426 506	3 983 561	47 786	57 095	63 284	71 258	79 060
<i>Exports</i>										
Granite-										
Worked	1 059	849	689	1 604	870	1 698	1 196	1 330	1 508	1 611
Unworked	13 915	12 705	11 536	1 747	2 068	2 172	2 361	1 913	573	821

Insulating materials

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Insulating materials										
<i>Imports</i>										
Mineral wools (a)	28 160	32 361	31 615	21 548	24 042	34 665	39 333	37 497	34 053	40 439
Expanded minerals (b)	35 349	60 215	65 908	50 355	72 651	8 530	10 740	13 880	10 564	11 543
Other (c)	48 851	46 511	37 172	28 247	29 069	73 990	76 539	72 975	51 592	60 037
<i>Exports</i>										
Mineral wools (a)	47 246	58 046	66 518	61 447	56 257	75 722	83 037	101 804	90 454	134 954
Expanded minerals (b)	12 608	13 666	12 468	10 400	14 457	21 602	24 146	26 434	22 451	35 349
Other (c)	30 491	31 984	30 888	19 597	11 533	88 304	86 113	79 682	62 708	43 955

(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 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Iodine										
<i>Imports</i>										
	938	1 005	847	820	924	14 623	17 910	18 864	22 009	24 105
<i>Exports</i>										
	241	206	226	173	178	3 544	3 271	4 455	4 733	2 771

Iron compounds and earth colours

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Iron compounds and earth colours										
<i>Imports</i>										
Earth colours containing 70% or more ferric oxide	72	27	1	0	8	26	23	7	2	17
Other iron compounds-Oxides and hydroxides	30 056	30 334	33 133	26 851	30 608	27 190	27 437	27 778	23 250	30 468
<i>Exports</i>										
Earth colours containing 70% or more ferric oxide	80	60	38	80	136	136	84	77	164	399
Other iron compounds-Oxides and hydroxides	5 693	5 919	5 580	3 878	3 889	10 768	10 793	9 356	6 955	8 908

Iron ore

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Iron ore										
<i>Consumption</i>	9 020 500	8 497 100	8 464 500	8 172 900	3 628 300					
<i>Imports</i>										
Iron ore	9 128 808	8 898 721	7 658 408	7 061 081	8 119 399	611 301	587 059	592 978	561 136	1 002 568
Fe content (a)	5 500 000	5 300 000	4 600 000	4 200 000	4 900 000					
<i>Exports</i>										
Iron ore	2 205	2 923	1 623	1 683	1 410	594	819	572	452	520

(a) BGS estimates.

Iron and steel

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Iron and steel										
<i>Production</i>										
Pig iron	5 996 500	5 587 900	5 621 700	5 235 500	5 749 600					
<i>Crude steel-</i>										
Alloy qualities	466 100	454 200	345 100	245 500	311 100					
Other	7 025 200	6 813 500	6 873 000	6 840 200	6 910 500					
Total	7 491 300	7 267 700	7 218 100	7 085 700	7 221 600					
<i>Consumption</i>										
Pig iron (a)	5 920 000	5 613 000	5 618 000	5 508 000	5 267 000					
Finished steel (b)	10 118 000	9 913 000	9 343 000	7 410 000	6 968 000					
Scrap	2 691 800	2 788 500	2 685 700	2 665 100	760 500					
<i>Imports</i>										
Pig iron	42 350	37 901	43 079	21 592	18 495	14 469	12 353	14 214	6 242	8 285
Shot, powder, sponge etc	21 310	22 664	24 092	19 677	21 700	32 352	40 618	45 928	32 768	41 468
Ferro-alloys	163 971	181 157	159 385	134 647	153 366	202 586	246 329	196 933	147 950	232 644
Ingots and other primary forms	422 137	725 999	574 167	348 038	425 116	254 965	410 305	329 885	187 365	285 728
Scrap	321 663	366 533	268 277	363 325	346 298	112 448	144 746	80 363	64 544	109 899
<i>Exports</i>										
Pig iron	4 470	8 058	6 322	11 148	3 492	787	1 692	1 597	2 092	1 002
Shot, powder, sponge etc	44 528	36 124	42 604	30 514	17 968	57 180	65 374	69 262	58 643	59 807
Ferro-alloys	38 592	36 765	31 465	25 649	31 584	197 018	251 672	230 847	122 966	232 372
Ingots and other primary forms	476 459	663 715	466 558	585 264	555 821	549 308	707 814	533 873	457 790	684 784
Scrap	8 567 251	8 546 485	7 914 657	6 704 643	8 428 730	2 168 719	2 332 820	1 989 400	1 602 992	2 856 249

(a) Consumption in steel making only.

(b) Net home disposals

Consumption in the United Kingdom iron and steel industry 2012–2021

Thousand tonnes

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Iron ore –										
Home produced (a)	—	—	—	—	—	—	—	—	—	—
Imported (b)	10 511	14 037	14 353	12 975	9 126	9 023	8 497	8 465	8 173	3 628
Manganese ore	—	3	—	—	10	2	—	—	—	—
Iron and steel scrap (c)	3 675	4 085	4 145	3 700	2 551	2 692	2 789	2 686	2 665	729
Pig iron (c)	7 325	9 909	9 678	8 737	6 082	5 920	5 613	5 618	5 508	5 267
Alloy metals (d) –										
Nickel	10	...	...	...	...	...	...	...	...	...
Molybdenum	2	...	...	...	...	...	...	...	...	...
Tungsten	0	...	...	...	...	...	...	...	...	...
Vanadium	0	...	...	...	...	...	...	...	...	...
Cobalt	0	...	...	...	...	...	...	...	...	...
Chromium	42	...	...	...	...	...	...	...	...	...
Niobium	0	...	...	...	...	...	...	...	...	...
Ferro-alloys –										
Ferro-manganese	66	...	...	...	...	...	...	...	...	...
Ferro-silico-manganese	16	...	...	...	...	...	...	...	...	...
Ferro-aluminium	2	...	...	...	...	...	...	...	...	...
Ferro-chromium	(e)	...	...	...	...	...	...	...	...	...
Ferro-silico-chromium	(e)	...	...	...	...	...	...	...	...	...
Ferro-silicon	26	...	...	...	...	...	...	...	...	...
Ferro-silico-zirconium	0	...	...	...	...	...	...	...	...	...
Calcium silicide	0	...	...	...	...	...	...	...	...	...
Ferro-phosphorus	1	...	...	...	...	...	...	...	...	...
Ferro-niobium	(e)	...	...	...	...	...	...	...	...	...
Ferro-titanium	1	...	...	...	...	...	...	...	...	...
Dolomite (raw and burnt) (f)	556	759	793	790	494	451	427	492	351	248
Limestone (f)	912	1 147	1 255	1 041	680	653	638	591	510	253
Lime (f)	379	387	461	415	294	324	335	400	316	319
Zinc for galvanising	42	...	...	...	...	...	...	...	...	...
Tin for tinplating	2	...	...	...	...	...	...	...	...	...

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

(c) Consumption in steel making only.

(d) Metal content.

(e) Included under alloying metals.

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

Source: Iron and Steel Statistics Bureau.

Lead

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Lead										
<i>Production</i>										
Concentrate-										
Pb content (a) (b)	100	100	150	100	100					
Unwrought-										
Bullion	36 000	36 000	36 000	36 000	36 000					
Refined										
Primary (c)	144 000	138 000	146 000	152 200	164 900					
Secondary	160 800	165 000	165 000	163 000	164 000					
<i>Consumption</i>										
Refined	249 800	226 200	241 300	182 900	294 800					
<i>Imports</i>										
Ores & concentrates	1 242	1 330	1 949	748	718	2 867	2 905	3 435	1 170	244
Ash and residues	37	1	105	235	230	36	9	228	603	558
Unwrought										
Unrefined-										
Base bullion (d)	149 358	115 539	116 553	139 539	168 135	353 902	259 315	232 526	264 058	361 057
Other	1 128	12 487	16 694	3 519	2 295	2 451	24 351	31 183	5 684	3 951
Refined	30 717	26 020	38 570	10 707	12 273	57 305	43 322	63 173	16 017	19 955
Alloys	10	21	106	108	5	33	33	166	162	12
Scrap	2 998	2 250	6 218	2 000	992	3 890	3 081	9 000	2 373	1 486
<i>Exports</i>										
Ores & concentrates	1 914	1 838	2 231	1 886	111	2 843	3 259	2 526	2 963	191
Ash and residues	3 674	8 316	7 998	6 820	4 413	742	642	1 581	826	12
Unwrought										
Unrefined-										
Base bullion	258	—	349	0	0	1 388	7	649	14	12
Other	74 746	63 162	61 893	45 917	64 281	156 728	128 821	154 434	80 534	123 608
Refined	87 047	80 120	74 760	108 055	122 265	168 709	152 919	132 072	169 454	206 704
Alloys	10 649	22 677	33 520	31 282	4 081	21 135	41 617	58 070	46 147	7 605
Scrap	62 057	58 094	46 328	41 202	53 318	82 703	78 254	54 767	48 016	70 310

(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 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Limestone										
<i>Production</i>										
Limestone	...	...	...	...	...
Dolomite	...	...	...	...	...
<i>Imports</i>										
Limestone flux (a)	462 833	315 851	16 954	25 589	7 605	25 251	19 652	2 100	2 693	2 013
Lime	8 101	7 007	8 210	8 888	8 656	1 821	1 846	1 937	1 721	1 873
Dolomite	242 606	247 144	215 127	318 955	199 607	8 227	9 609	9 529	8 994	9 676
<i>Exports</i>										
Limestone flux (a)	209 183	193 333	162 027	154 091	34 956	3 406	2 974	2 190	2 286	1 319
Lime	131 872	126 455	141 954	121 022	120 026	26 831	22 495	23 549	19 477	22 941
Dolomite (b)	190 800	195 700	239 500	151 000	216 000	20 200	25 800	22 900	19 600	26 000
Chalk										
<i>Production</i>										
					
<i>Imports</i>										
	13 217	9 483	12 451	14 814	21 482	1 532	3 135	2 397	1 216	1 627
<i>Exports</i>										
	25 151	25 787	30 155	42 919	72 728	2 711	2 856	3 176	2 756	4 387

(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, 1984–2021

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
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	—
2020	227	124	510	—	—	316	—
2021	114	135	253	—	—	319	—

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 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Lithium										
<i>Imports</i>										
Oxide and hydroxide	324	358	552	467	698	5 118	5 030	5 266	2 984	5 562
Carbonate	1 919	1 680	1 648	1 508	2 019	13 859	18 708	9 709	6 193	12 655
<i>Exports</i>										
Oxide and hydroxide	228	195	396	282	430	2 994	3 521	3 961	1 958	4 592
Carbonate	768	842	645	690	1 414	8 287	10 990	5 845	3 350	11 858

Magnesia

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Magnesia										
<i>Imports</i>										
Magnesite	5 696	2 201	6 065	5 948	6 324	1 262	775	1 566	1 351	1 483
<i>Magnesia-</i>										
Dead burned	5 163	8 475	7 760	5 974	7 574	2 409	4 384	4 604	3 209	4 237
Caustic-calcined	26 358	22 953	26 717	20 260	19 077	8 464	8 503	8 899	6 673	5 692
Other	8 629	7 046	7 556	9 314	17 752	4 255	4 995	6 571	4 313	7 026
Kieserite	13 990	14 723	8 674	8 217	5 058	2 888	3 081	1 841	1 559	1 171
<i>Magnesite or chrome-magnesite</i>										
refractory bricks and shapes (a)(b)	12 758	18 089	29 893	17 392	19 387	10 702	16 697	17 772	15 139	13 165
<i>Exports</i>										
Magnesite	627	315	281	90	1 020	929	518	716	563	510
<i>Magnesia-</i>										
Dead burned	1 185	1 463	2 117	835	910	1 252	1 461	1 879	719	754
Caustic-calcined	2 466	3 214	3 376	4 575	1 416	658	801	1 003	1 174	435
Other	5 730	7 585	7 311	6 085	8 202	8 025	11 097	12 252	9 932	14 136
Kieserite	133	40	50	43	38	51	15	20	29	19
<i>Magnesite or chrome-magnesite</i>										
refractory bricks and shapes (a)(b)	2 329	5 686	5 448	3 260	3 398	1 826	2 811	3 781	1 769	1 328

(a) Including dolomite bricks.

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

Magnesium

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Magnesium										
<i>Imports</i>										
Ferro-silico-magnesium	309	457	376	638	217	296	326	407	836	288
Scrap	359	129	25	43	136	252	102	54	60	245
Unwrought	3 212	3 404	2 571	2 118	2 307	5 839	6 490	5 306	3 644	5 001
Unwrought alloys	3 661	1 397	291	404	131	7 918	3 116	786	653	323
Wrought	5 127	4 989	3 704	2 846	3 383	29 272	21 827	19 484	14 619	19 874
<i>Exports</i>										
Ferro-silico-magnesium	64	72	83	78	56	85	106	112	96	74
Scrap	2 926	1 151	153	65	180	6 370	2 280	137	50	159
Unwrought	6	75	9	51	82	120	438	109	239	229
Unwrought alloys	1 636	1 868	1 436	892	1 190	16 182	22 162	17 939	11 490	15 793
Wrought	541	552	369	432	764	12 483	23 706	12 864	10 900	13 151

Manganese

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Manganese										
<i>Consumption in Iron and Steel</i>										
<i>Industry</i>										
Ore	2 400	—	—	—	—					
<i>Apparent consumption (a)</i>	44 000	56 000	57 000	52 000	47 000					
<i>Imports</i>										
Ores & Concentrates (b)	3 689	3 212	3 337	3 904	3 082	1 683	1 474	1 305	1 453	995
Ferro-manganese	21 903	31 607	34 438	35 824	28 952	25 909	33 661	33 570	32 919	30 526
Ferro-silico-manganese	31 735	35 815	35 215	28 469	30 854	30 286	30 865	29 138	22 255	31 185
Scrap	15	51	12	7	—	25	95	20	15	—
Unwrought	3 393	3 574	2 630	2 044	2 671	5 078	5 812	4 251	3 135	5 711
Wrought	82	2	279	22	111	159	14	624	54	892
Oxides	6 317	5 984	5 862	5 340	5 640	4 075	4 283	4 811	3 863	4 450
<i>Exports</i>										
Ores & Concentrates	375	497	136	425	314	374	548	164	136	286
Ferro-manganese	2 132	416	464	560	3 057	4 802	804	675	617	2 002
Ferro-silico-manganese	156	122	178	116	1	188	67	87	40	17
Scrap	2	24	2	9	42	6	43	5	12	284
Unwrought	118	134	140	91	113	199	237	275	158	286
Wrought	20	1	3	0	174	121	70	138	39	431
Oxides	1 349	655	989	932	73	1 089	529	936	815	136

(a) BGS estimates; see explanatory notes.

(b) Including manganiferous iron ore.

Marble

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Marble										
<i>Imports</i>										
Dimension stone-										
Unworked	30 167	33 351	35 478	50 326	76 563	11 745	15 895	11 865	13 467	22 191
Worked	55 704	46 885	55 830	42 766	27 745	49 320	41 948	59 458	40 933	15 827
Crushed and powdered	126 492	132 421	89 451	70 568	22 160	8 893	9 212	7 104	5 557	3 249
<i>Exports</i>										
Dimension stone-										
Unworked	834	1 219	1 265	723	681	465	836	1 225	816	863
Worked	809	831	1 150	1 213	508	3 417	4 246	4 666	3 589	1 314
Crushed and powdered	387	657	280	255	516	46	102	62	38	194

Mercury

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Mercury										
<i>Imports</i>										
Elemental	0	0	10	0	0	27	55	85	17	6
<i>Exports</i>										
Elemental	0	0	0	0	0	13	7	2	2	13

Mica

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Mica										
<i>Imports</i>										
Crude (a)	514	271	1 065	748	2 162	151	87	319	257	986
Ground	8 072	7 789	5 465	4 377	3 938	3 042	3 731	2 280	2 233	2 188
Waste	—	...	—	0	0	—	...	—	4	0
Worked	1 099	1 212	972	843	1 032	4 781	4 509	3 809	3 815	5 922
<i>Exports</i>										
Crude (a)	10	8	17	5	0	107	20	46	20	12
Ground	4 590	4 863	4 650	3 666	3 677	4 716	5 063	4 817	4 352	4 396
Waste	2	—	7	—	5	15	—	5	—	26
Worked	919	904	997	808	899	11 306	11 708	11 193	9 541	9 323

(a) Including sheets or splittings.

Molybdenum

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Molybdenum										
<i>Apparent consumption (a)(b)</i>	3 300	1 200	2 100	1 400	2 200					
<i>Imports</i>										
Roasted molybdenite concentrates	15 701	14 040	12 896	7 457	12 315	127 191	160 297	164 155	68 451	150 724
Other ores and concentrates	33	11	94	5	2	321	176	827	121	79
Ferro-molybdenum	220	267	419	271	159	1 796	3 373	5 919	3 258	2 512
Scrap	1 519	1 719	2 010	1 607	1 607	22 374	33 480	43 012	30 238	40 645
Powders	144	55	133	91	32	3 208	1 407	3 832	2 599	937
Unwrought	231	182	331	146	197	4 573	4 078	7 588	3 452	4 820
Wrought	75	58	34	114	121	2 717	3 210	2 921	1 775	2 451
Oxides and hydroxides	1 573	1 301	1 556	1 232	1 096	12 641	15 485	16 375	11 866	13 537
<i>Exports</i>										
Roasted molybdenite concentrates	0	15	120	530	684	1	173	1 466	5 183	8 059
Other ores and concentrates	0	12	—	1	8	3	16	—	11	59
Ferro-molybdenum	12 833	13 301	12 236	7 317	9 687	125 981	187 460	179 493	80 876	168 487
Scrap	1 186	1 744	1 399	890	1 297	16 860	25 967	35 567	18 914	35 084
Powders	54	153	160	18	23	980	2 137	3 003	493	666
Unwrought	34	52	197	254	127	586	1 285	5 948	5 078	3 941
Wrought	3	14	9	3	18	787	815	841	489	1 136
Oxides and hydroxides	0	—	2	0	10	14	9	45	8	39

(a) Metal content.

(b) BGS estimates; see explanatory notes.

Nepheline syenite

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Nepheline syenite										
<i>Imports</i>	38 645	36 122	28 872	19 149	22 189	3 491	3 474	3 018	2 129	2 411
<i>Exports</i>	537	567	446	435	520	113	150	99	102	172

Nickel

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Nickel										
<i>Production (a)</i>	37 090	38 211	34 976	35 177	30 654					
<i>Consumption (b)(c)</i>	23 976	23 097	19 217	19 230	8 698					
<i>Imports</i>										
Ores & concentrates	28	0	0	0	30 573	231	3	9	6	10 555
Mattes, sinters etc.	52 114	50 887	51 744	41 755	36 175	327 204	381 688	397 062	334 613	265 390
Scrap	8 337	10 562	13 294	7 166	10 182	50 473	66 737	87 207	41 119	64 506
Ferro-nickel	7 272	11 279	10 713	5 941	8 947	15 149	26 287	12 665	14 329	33 570
Unwrought	10 330	9 857	9 033	5 642	7 274	83 126	103 051	96 526	62 235	95 978
Unwrought alloys	4 530	4 591	4 796	2 970	2 856	69 764	97 352	85 906	49 102	40 947
Oxides	32	51	154	3	50	174	148	244	113	1 130
<i>Exports</i>										
Ores & concentrates	5	12	0	23	0	75	20	6	107	4
Ash and residues	9 986	9 487	9 136	8 142	8 116	100 252	95 139	89 740	79 461	57 714
Mattes, sinters etc.	226	65	94	134	392	2 620	1 032	1 244	1 335	3 377
Scrap	11 442	20 460	13 863	8 872	10 444	87 575	114 417	118 612	60 905	88 612
Ferro-nickel	291	154	478	516	149	290	252	680	832	199
Unwrought	26 493	23 520	17 301	30 802	24 201	234 309	240 021	194 798	354 555	353 009
Unwrought alloys	7 437	7 752	8 257	5 205	5 040	99 385	122 048	132 713	90 851	93 605
Oxides	1	0	0	2	2	37	30	20	122	92

(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 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Peat										
<i>Production</i>	...	....	...	...	...
<i>Imports</i>										
Peat and agglomerated peat	503 240	470 074	522 520	574 663	661 698	33 058	35 338	40 103	45 870	48 049
<i>Exports</i>										
Peat and agglomerated peat	41 817	41 206	37 292	51 927	50 863	5 653	5 941	5 776	8 463	8 267

Perlite

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Perlite										
<i>Imports (a)</i>	22 333	40 402	34 763	19 561	19 321	6 134	6 343	6 397	3 887	4 289
<i>Exports (a)</i>	1 089	831	682	672	1 039	592	456	497	522	569

(a) Figures also include vermiculite and chlorites.

Petroleum (also see Primary fuels)

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Petroleum										
<i>Production</i>										
Crude petroleum	43 185 000	47 848 000	49 344 000	45 658 000	38 239 000					
Condensates and other (a)	3 446 000	3 339 000	3 144 000	3 327 000	2 625 000					
Refined petroleum products	59 796 000	58 205 000	58 726 000	47 859 000	46 915 000					
<i>Consumption (inland deliveries) of refined products</i>										
<i>Used as fuels-</i>										
Refineries	3 389 000	3 334 000	3 319 000	2 597 000	2 682 000					
Elsewhere	60 056 000	59 473 000	58 712 000	43 851 000	48 606 000					
Not used as fuels	7 262 000	6 921 000	6 348 000	5 940 000	4 956 000					
Total	70 707 350	69 727 910	68 378 540	52 388 030	54 553 170					
<i>Imports</i>										
Crude petroleum	50 351 691	48 064 186	49 925 112	45 724 018	44 641 439	16 074 046	19 739 796	19 203 974	12 141 988	17 412 121
Partly refined petroleum and refined products	33 839 960	36 049 170	13 282 335	9 546 298	6 856 267	12 792 546	16 458 324	5 868 175	2 755 493	3 076 035
<i>Exports</i>										
Crude petroleum	45 743 284	49 786 125	45 479 841	46 152 558	33 639 282	14 683 669	20 360 353	18 191 562	12 519 045	12 363 029
Partly refined petroleum and refined products	23 732 942	22 448 030	4 121 764	3 630 087	3 979 025	9 223 996	10 580 955	1 887 489	1 126 855	1 864 506

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

Natural gas

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Natural gas										
<i>Production</i>										
<i>Methane</i>										
Colliery (a)	35 000	33 000	31 000	25 000	26 000					
Offshore and onshore (a)	39 981 000	38 792 000	37 507 000	37 781 000	31 297 000					
Consumption (b)	74 618 000	74 647 000	73 812 000	69 483 000	73 628 000					
<i>Imports</i>										
Liquefied natural gas (c)	6 312 040	6 716 340	16 719 525	17 202 675	13 744 788					
Natural gas in gaseous state (c)	38 143 892	37 744 835	27 233 685	23 914 320	34 478 351					
Total (c)	44 455 932	44 461 176	43 953 210	41 116 995	48 223 140	7 465 000	10 845 000	6 875 000	4 585 000	19 880 000
Other natural gas (d)	1 065 836	801 671	548 543	429 640	810 350	387 896	322 814	216 678	142 598	421 335
<i>Exports</i>										
<i>Liquefied natural gas and</i>										
natural gas in gaseous state (c)	10 699 176	7 127 236	7 772 614	9 106 327	6 507 517	1 830 000	1 820 000	1 125 000	825 000	3 225 000
Other natural gas (d)	2 976 609	2 838 830	2 883 818	2 563 479	2 331 982	1 053 820	1 171 313	1 025 506	703 473	1 030 817

(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 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Phosphorus										
<i>Imports</i>										
Phosphate rock	558	168	263	380	180	284	124	231	217	93
Fertiliser	165 383	144 232	147 062	149 117	134 724	49 060	47 843	48 970	40 351	54 262
Superphosphates	136 506	171 743	160 914	141 084	93 263	31 155	47 552	40 917	26 636	22 256
Other phosphatic fertilisers	10 149	2 520	4 772	270	3 345	1 565	704	1 073	318	794
Elemental phosphorus	1 658	1 817	698	576	663	5 283	4 281	1 767	1 567	1 334
Phosphoric acids	82 254	73 845	71 881	79 463	66 511	44 489	48 082	49 355	52 190	48 134
Calcium phosphates	85 221	96 918	99 703	79 511	82 516	38 386	42 418	43 682	35 182	42 745
Sodium phosphates and orthophosphates	8 751	8 288	9 507	8 730	9 188	8 878	9 369	9 691	8 961	10 062
Polyphosphates including ammonium and sodium	26 642	37 600	32 162	27 487	19 257	25 450	30 857	31 124	28 754	32 015
<i>Exports</i>										
Phosphate rock	234	281	63	473	203	215	1 193	790	230	206
Fertiliser	786	1 002	712	826	518	507	810	652	635	1 053
Superphosphates	23	1 877	(a) 2 510	(a) 270	217	153	546	(a) 710	(a) 50	987
Other phosphatic fertilisers	5 769	6 604	5 138	1 677	1 876	1 202	956	657	718	485
Elemental phosphorus	0	0	8	23	0	19	18	20	13	4
Phosphoric acids	1 916	1 715	7 502	9 063	10 526	1 784	1 945	6 455	7 493	9 150
Calcium phosphates	4 515	1 422	1 829	3 224	2 930	3 967	1 623	2 547	2 663	3 678
Sodium phosphates and orthophosphates	870	643	826	520	393	1 472	1 308	1 238	972	659
Polyphosphates including ammonium and sodium	1 439	1 213	1 555	1 251	743	3 720	4 096	3 641	4 845	1 770

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

Platinum group metals

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Platinum group metals										
<i>Imports</i>										
<i>Unwrought or partly worked-</i>										
Platinum	339	84	96	100	28	1 399 896	1 470 589	2 031 032	1 858 409	1 963 177
Palladium	422	48	67	86	73	1 054 226	1 126 245	2 500 250	3 819 931	3 832 580
Other platinum metals	23	14	10	10	9	145 127	235 522	456 004	1 622 744	2 819 445
Waste & scrap	1 281	1 194	663	628	1 773	201 653	48 637	42 652	61 265	574 787
<i>Exports</i>										
<i>Unwrought or partly worked-</i>										
Platinum	91	95	62	97	100	2 099 626	1 972 488	1 347 677	2 156 932	2 662 527
Palladium	89	83	83	77	65	1 906 302	2 049 827	3 113 649	4 218 756	3 678 068
Other platinum metals	23	51	20	18	15	319 628	522 053	900 193	2 651 225	3 554 147
Waste & scrap	2 265	3 149	2 957	2 674	5 305	39 697	71 402	100 318	166 326	898 363

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 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Potassium compounds										
<i>Production</i>										
Chloride (K ₂ O Content)	216 000	210 000	—	—	—					
Polyhalite	500 000	400 000	632 000	709 000	789 000					
<i>Imports</i>										
Sulphate	12 270	10 151	9 057	12 087	6 062	4 688	3 845	4 272	6 708	4 915
Chloride	362 278	333 293	448 937	426 057	332 590	75 128	73 172	105 644	93 381	72 329
Other potassic fertilisers	6 713	2 866	3 563	622	3 568	1 638	1 357	1 731	1 560	2 284
<i>Exports</i>										
Sulphate	1 269	2 221	2 546	3 221	3 332	370	607	710	810	829
Chloride	17 840	36 633	77 842	113 492	100 262	7 588	12 573	18 801	21 428	21 796
Other potassic fertilisers	224 884	283 256	451 513	519 081	591 654	21 337	23 122	38 599	41 336	68 089

Precious and semi-precious stones

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Precious and semi-precious stones (excluding diamond) (a)										
<i>Imports</i>										
Natural stones	498	387	474	436	1 288	158 284	94 105	135 750	70 577	150 706
Synthetic stones	29	18	41	1	0	10 559	7 478	17 121	280	211
Dust and powder	2	1	1	1	1	339	427	66	126	215
<i>Exports</i>										
Natural stones	56	22	154	14	111	163 444	116 802	209 652	55 393	85 421
Synthetic stones	6	6	4	1	11	18 837	24 754	17 813	462	289
Dust and powder	1	1	132	2	0	429	144	243	38	46

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

United Kingdom production of primary fuels 1991–2021 (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
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	7	15	3	113
2014	7	44	36	8	14	4	112
2015	5	50	39	9	16	5	123
2016	3	52	40	10	15	5	125
2017	2	51	40	11	15	6	125
2018	2	56	39	12	14	7	129
2019	2	58	38	12	12	7	128
2020	1	54	38	12	11	8	124
2021	1	45	31	13	10	7	107

(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) 1991–2021 (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
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	9	15	3	1	207
2014	32	66	66	11	14	4	2	194
2015	25	67	68	12	16	5	2	195
2016	13	68	76	14	15	5	2	192
2017	10	70	74	14	15	6	1	191
2018	9	69	74	16	14	7	2	190
2019	6	68	73	17	12	7	2	184
2020	6	51	68	18	11	8	2	163
2021	6	55	73	18	10	7	2	170

(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 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Pumice										
<i>Imports</i>	2 699	2 131	1 550	1 280	1 301	863	717	654	648	570
<i>Exports</i>	328	500	304	403	585	301	431	323	553	510

Pyrite

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Pyrite										
<i>Imports</i>										
Iron pyrites (incl.cupreous)-										
Unroasted	798	2 079	2 848	4 466	1 997	180	468	1 003	1 202	513
Roasted	77	426	335	0	1	68	165	82	3	19
<i>Exports</i>										
Iron pyrites (incl.cupreous)-										
Unroasted	3 014	6 876	226	556	835	939	1 600	100	190	933
Roasted	0	1	0	—	—	3	6	1	—	—

Quartz and quartzite

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Quartz and quartzite										
<i>Imports</i>										
Quartzite	410	3 921	4 471	4 527	2 858	280	209	296	568	551
Quartz	25 431	20 011	22 002	21 077	38 672	19 860	16 384	22 300	20 704	41 937
<i>Exports</i>										
Quartzite	14	20	11	5	17	31	414	128	25	121
Quartz	419	928	696	3 499	2 476	544	895	1 119	860	1 023

Radioactive and associated materials

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Radioactive and associated materials										
<i>Imports</i>										
Natural and enriched uranium, plutonium, artificial radioactive isotopes, and their compounds	...	...	...	...	...	246 120	307 981	294 606	210 895	59 726
<i>Exports</i>										
Natural and enriched uranium, plutonium, artificial radioactive isotopes, and their compounds	...	...	...	...	...	216 866	239 944	277 540	172 128	22 600

Rare earths

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Rare earths										
<i>Imports</i>										
Metals (a)	6	0	0	0	3	154	14	28	7	72
Cerium compounds	1 302	437	563	108	322	12 143	3 367	9 427	1 164	3 259
Other rare earth compounds (b)	628	499	563	334	184	16 235	13 596	9 427	7 356	3 716
Ferro-cerium & other pyrophoric alloys	41	1	4	27	10	101	35	102	181	164
<i>Exports</i>										
Metals (a)	13	12	10	8	5	512	374	231	253	295
Cerium compounds	775	151	36	38	112	12 899	2 292	1 736	1 263	3 694
Other rare earth compounds (b)	278	356	218	104	61	6 733	9 308	4 484	1 494	1 363
Ferro-cerium & other pyrophoric alloys	25	50	45	10	1	330	302	282	178	25

(a) Including yttrium and scandium.

(b) Including yttrium and scandium compounds.

Salt

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Salt										
<i>Production</i>	2 361 707	3 430 266	2 377 765	2 327 965	2 687 679					
<i>Imports</i>	703 377	1 129 652	856 464	612 494	981 436	72 200	76 796	73 409	72 424	69 064
<i>Exports</i>	352 195	366 935	273 285	374 671	193 582	47 594	60 078	52 001	54 811	51 413

Sand and gravel (see also Aggregates)

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Sand and gravel										
<i>Production*</i>										
Sand & gravel (a)	67 545 000	69 882 000	65 660 000	(b) 57 571 000	(b) 64 576 000					
<i>Consumption</i>										
Building sand	...	...	...	...	...
Concreting sand	...	...	...	...	...
Gravel and hoggin	...	...	...	...	...
Total	...	...	...	...	...
<i>Imports</i>	631 921	488 876	465 526	348 107	386 203	18 704	19 951	25 586	22 491	15 299
<i>Exports (c)</i>	2 409 597	2 841 913	3 257 033	3 331 874	1 622 240	26 473	28 994	40 017	31 407	23 087

* 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): 2017: 3 127 371; 2018: 4 110 142; 2019: 4 672 369; 2020: 4 344 873 and 2021: 4 314 653.

United Kingdom production of sand and gravel 1996–2021

Million tonnes

Year	Land-based production			Marine-dredged			Total production United Kingdom	For beach replenish- ment (c) (f)
	Great Britain (a)	Northern Ireland (b)	Total	For home market (a)	For export (c)	Total		
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) 44.5	(d) 3.1	47.6	(c) 13.4	4.7	18.1	65.7	3.9
2020	(e) 38.6	(d) 2.5	41.1	(c) 12.1	4.3	16.4	57.5	1.6
2021	(e) 43.2	(d) 2.8	46.0	(c) 14.2	4.3	18.6	64.6	2.1

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 1986–2021

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
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	1 410	2 571	2 509	5 877	6 600	11 936	17 538	3 923	52 364	2 145	5 111	59 620
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	1 820	2 335	2 312	6 476	7 063	11 125	15 916	3 433	50 480	1 810	5 630	57 920
2020	1 257	1 753	2 093	6 252	5 373	10 257	13 954	3 198	44 137	1 830	4 758	50 725
2021	1 843	2 040	2 284	7 049	6 843	11 807	15 078	3 384	50 328	1 899	5 240	57 467

(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.

For 2014 and 2019 the Aggregate Minerals Survey

Sandstone

United Kingdom summary 2015–2019

Commodity	2017	2018	2019	2020	2021
Tonnes					
Sandstone – see Building and dimension stone					
<i>Production</i>

(a) Includes an estimate for Northern Ireland.

Selenium

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Selenium										
<i>Imports</i>										
Elemental	238	244	261	127	258	1 464	2 284	2 297	1 154	872
<i>Exports</i>										
Elemental	46	23	57	21	23	1 065	655	1 063	759	544

Silica sand

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Silica sand										
<i>Production (a) (b)</i>	5 051 461	4 890 490	5 136 383	5 336 805	4 244 693					
<i>Imports</i>	154 051	139 980	203 569	111 684	400 200	11 974	10 545	12 355	11 791	19 950
<i>Exports</i>	91 001	83 315	270 849	189 890	118 779	4 012	3 948	4 006	4 773	4 555

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

(b) Source: Office for National Statistics, except 2018 which was a comprehensive survey by the Silica and Moulding Sands Association and BGS

Silicon

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Silicon										
<i>Imports</i>										
Elemental silicon-										
Containing not less than										
99.99% silicon	889	321	235	397	255	18 812	17 812	26 406	19 991	27 553
Other	97 083	100 076	79 786	76 167	84 408	161 849	192 025	154 752	134 466	153 550
Ferro-silicon	34 399	39 958	29 766	24 610	31 006	33 554	43 505	31 154	23 151	33 279
Ferro-silico-manganese	31 735	35 815	35 215	28 469	30 854	30 286	30 865	29 138	22 255	31 185
Ferro-silico-magnesium	309	457	376	638	217	296	326	407	836	288
Ferro-silico-chrome	12	1	18	6	19	55	12	34	16	32
Doped silicon	279	217	140	214	282	55 454	43 301	40 628	37 030	44 216
<i>Exports</i>										
Elemental silicon-										
Containing not less than										
99.99% silicon	1 012	7	19	96	159	13 227	179	316	293	214
Other	2 408	1 855	1 578	2 639	2 364	3 984	3 367	3 962	5 142	5 604
Ferro-silicon	2 964	2 525	1 526	1 263	2 201	5 499	4 717	3 284	3 170	5 157
Ferro-silico-manganese	156	122	178	116	1	188	67	87	40	17
Ferro-silico-magnesium	64	72	83	78	56	85	106	112	96	74
Ferro-silico-chrome	545	89	43	60	109	1 269	242	162	188	301
Doped silicon	204	239	262	230	370	104 774	107 180	114 495	98 758	106 269

Sillimanite

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Sillimanite										
<i>Imports</i>										
Sillimanite minerals (a)	8 526	9 805	8 634	6 856	7 867	2 689	3 054	2 906	2 367	2 462
Chamotte earth (b)	10 865	9 319	9 773	6 511	6 984	2 375	2 008	2 031	1 237	1 520
Mullite	4 656	3 405	3 308	2 170	2 083	2 473	2 264	1 611	1 052	1 189
<i>Exports</i>										
Sillimanite minerals (a)	346	648	946	678	734	111	196	378	199	494
Chamotte earth (b)	1 059	973	792	430	165	415	383	330	210	83
Mullite	2 099	1 994	923	548	1 339	2 507	2 570	1 382	747	1 499

(a) Andalusite, kyanite and sillimanite.

(b) Calcined refractory clay including flint clay.

Silver

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Kilograms					£ thousand				
Silver										
<i>Production (a)</i>										
	—	—	130	100	400					
<i>Imports</i>										
Ores & concentrates	7	79	34	114	—	2 321	1 511	1 250	126	3
Waste & scrap	8 525	10 438	9 743	9 798	7 099	691 254	831 182	1 041 741	1 924 733	2 302 665
Unwrought	4 559	3 314	2 931	3 546	6 301	1 967 094	1 251 044	1 230 635	1 887 047	3 746 744
Partly worked	830	1 119	321	212	169	152 233	253 134	46 338	46 422	740 520
Silver in unrefined lead bullion (b)	360	230	230	280	340					
<i>Exports</i>										
Ores & concentrates	32	42	2	1	2	1 386	2 070	175	134	101
Waste & scrap	10 742	11 640	11 609	10 117	52 285	358 966	311 851	477 268	988 430	819 284
Unwrought	1 340	2 697	2 086	4 891	3 792	581 668	1 015 074	811 048	2 601 521	2 307 040
Partly worked	121	231	326	725	597	41 688	70 451	123 186	327 993	325 344

(a) BGS estimate

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

Slate

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Slate										
<i>Production (a)</i>	820 000	820 000	160 000	160 000	170 000					
<i>Imports</i>										
Unworked (b)	77 562	53 167	36 766	29 374	27 045	18 666	16 544	13 914	12 452	13 739
Roofing and wall tiles	135 458	127 934	142 175	141 755	160 136	59 058	60 586	65 597	64 581	79 463
Other worked slate (c)	28 340	30 327	22 262	23 504	27 890	13 153	14 104	11 093	9 920	15 397
<i>Exports</i>										
Unworked (b)	68 360	101 972	92 960	435	787	1 286	2 460	2 136	505	568
Roofing and wall tiles	6 631	5 656	6 311	6 556	8 148	4 570	4 187	4 248	4 536	6 570
Other worked slate (c)	6 654	7 664	2 549	2 285	7 821	2 736	2 681	1 721	971	1 145

(a) BGS estimate.

(b) Including roughly split or squared.

(c) Including articles of slate or agglomerated slate

Strontium

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Strontium										
<i>Imports</i>										
Carbonate	196	219	225	97	185	146	166	164	100	143
<i>Exports</i>										
Carbonate	0	0	1	0	0	4	28	107	3	6

Sulphur

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Sulphur										
<i>Production</i> (a)	133 000	129 000	130 000	106 000	107 000					
<i>Imports</i>										
Sulphur-										
Crude	8 584	175	14 098	18 151	81	1 807	276	754	1 304	90
Refined	6 403	7 067	4 746	4 483	3 233	4 791	4 250	2 422	2 586	1 161
Sublimed, colloidal etc	261	267	248	185	178	349	304	305	261	259
<i>Exports</i>										
Sulphur-										
Crude	16 695	14 895	1 526	990	34 712	1 272	609	124	103	4 839
Refined	30 480	11 136	23 664	5 764	13 954	3 684	1 753	2 648	1 122	2 566
Sublimed, colloidal etc	87	57	55	1 478	73	141	73	112	292	136

(a) Produced from oil refineries.

Talc

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Talc										
<i>Production</i>	3 218	1 640	3 131	1 386	1 397					
<i>Imports</i>	50 575	47 384	51 818	40 660	32 151	16 223	15 575	15 851	13 638	12 266
<i>Exports</i>	3 264	2 759	2 027	1 883	1 674	1 516	1 839	1 715	1 850	1 766

Tantalum and Niobium

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Tantalum and Niobium										
<i>Imports</i>										
Ferro-niobium	6 921	870	741	445	1 405	13 123	13 189	14 016	9 130	27 310
Tantalum	83	129	195	93	126	13 845	22 977	14 464	8 393	19 137
Niobium (a)	199	214	136	114	84	9 298	10 891	6 502	6 791	3 832
<i>Exports</i>										
Ferro-niobium	63	42	37	19	7	1 091	1 039	583	351	98
Tantalum	21	56	86	24	88	3 877	9 544	13 957	3 396	8 753
Niobium (a)	48	66	91	23	43	12 526	8 063	2 299	2 182	3 142

(a) Including rhenium.

Tellurium

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Tellurium										
<i>Imports</i>	1	0	1	2	1	97	31	102	188	147
<i>Exports</i>	2	1	0	0	0	117	22	28	18	25

Tin

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Tin										
<i>Production</i>	255	(a) 230	—	—	—					
<i>Consumption</i>										
Refined	1 080	1 080	1 080	240	960					
<i>Imports</i>										
Concentrates	—	—	25	25	0	—	—	414	355	3
Unwrought	4 869	5 533	3 440	3 641	3 492	76 307	84 191	52 932	50 471	80 851
Unwrought alloys	150	110	120	49	72	2 412	1 150	1 869	818	1 157
Scrap	0	18	6	5	14	12	112	42	41	162
<i>Exports</i>										
Unwrought	224	270	159	139	78	3 318	4 469	1 940	1 667	2 670
Unwrought alloys	465	375	280	315	177	5 062	4 416	3 504	3 483	2 680
Scrap	129	10	99	18	704	568	105	402	188	2 413

(a) BGS estimate.

Titanium

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Titanium										
<i>Production</i>										
Titanium dioxide pigment (a)	290 000	280 000	270 000	270 000	220 000					
<i>Apparent consumption (b)</i>										
	54 000	53 000	10 000	28 000	2 000					
<i>Imports</i>										
Titanium minerals	256 411	301 584	201 493	201 432	150 665	130 818	159 118	123 008	128 060	100 475
Unwrought	10 889	11 260	10 740	6 164	4 420	95 622	103 222	94 023	48 227	34 952
Scrap	9 073	10 251	8 986	7 302	6 335	15 513	18 585	17 391	10 659	17 527
Wrought	6 574	16 825	8 520	6 226	5 174	357 477	435 014	417 620	312 708	180 658
Ferro-titanium (c)	618	463	214	198	257	1 118	1 140	577	579	3 193
Oxides	6 070	5 183	4 154	3 601	4 767	14 227	12 819	11 225	9 577	13 147
Pigments based on titanium dioxide	54 569	56 354	60 819	62 455	58 167	116 402	136 956	140 920	130 936	144 253
<i>Exports</i>										
Titanium minerals	16	79	4 020	17	2	132	213	3 191	45	1
Scrap	7 575	7 020	7 632	2 981	2 971	21 014	19 071	23 413	7 336	9 058
Unwrought	1 297	2 064	1 856	935	436	13 747	22 947	19 879	10 483	5 384
Wrought	7 006	7 143	7 755	5 313	4 609	362 506	334 808	395 658	273 551	265 200
Ferro-titanium (c)	15 304	16 181	13 143	12 014	12 021	43 114	43 019	33 972	26 805	43 996
Oxides	3 483	628	1 258	3 421	2 574	6 458	2 529	3 306	8 546	6 984
Pigments based on titanium dioxide	236 573	225 507	218 722	217 235	219 411	464 829	489 145	473 943	456 446	475 650

(a) BGS estimates

(b) BGS estimates; see explanatory notes.

(c) Including ferro-silico-titanium.

Tungsten

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Tungsten										
<i>Production</i>										
	1 370	(a) 1 240	—	—	—					
<i>Imports</i>										
Ores & concentrates	12	9	18	48	16	284	331	873	1 047	663
Scrap	1 425	1 659	1 191	942	812	22 117	26 222	17 414	12 533	14 284
Unwrought	218	275	214	236	253	5 956	9 171	6 407	6 643	8 191
Wrought	152	59	99	41	201	4 933	5 744	5 149	4 457	4 632
Ferro-tungsten (b)	65	82	47	51	35	1 233	1 835	895	810	685
Carbide	1 848	1 475	540	126	25	54 755	53 191	17 738	4 499	866
Tungstates	6	9	10	5	5	194	155	313	153	153
Oxides and hydroxides	1	2	1	1	0	72	225	135	116	40
<i>Exports</i>										
Scrap	1 812	1 674	1 806	1 370	1 463	21 684	23 526	18 281	12 373	22 189
Unwrought	94	103	118	56	85	5 934	8 236	7 758	3 488	4 144
Wrought	76	77	73	58	380	6 210	6 418	5 994	4 987	4 682
Ferro-tungsten (b)	233	118	5	0	0	519	768	180	9	6
Carbide	27	592	147	22	19	1 928	3 571	5 993	1 974	1 142
Tungstates	1	0	0	0	0	17	14	4	19	1
Oxides and hydroxides	4	2	2	1	3	57	26	69	73	153

(a) BGS estimate

(b) Including ferro-silico-tungsten.

Vanadium

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Vanadium										
<i>Imports</i>										
Unwrought	284	189	241	81	150	6 325	7 877	10 640	2 160	3 998
Oxides	0	3	0	33	63	2	180	12	292	726
Ferro-vanadium	5 272	2 236	187	160	48	8 768	14 901	5 925	2 561	1 740
<i>Exports</i>										
Unwrought	105	276	120	14	41	2 082	3 853	3 512	489	1 253
Oxides	2	0	0	0	0	18	12	14	7	19
Ferro-vanadium	15	15	11	32	5	145	512	280	513	91

Vermiculite

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Vermiculite										
<i>Imports (a)</i>										
	28 945	22 333	40 402	34 763	19 561	5 052	6 134	6 343	6 397	3 887
<i>Exports (a)</i>										
	672	1 089	831	682	672	513	592	456	497	522

(a) Figures also include perlite and chlorites.

Zinc

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Zinc										
<i>Consumption</i>										
Slab	101 190	104 759	91 394	77 204	80 854					
<i>Imports</i>										
Ores & concentrates	19	1	0	2 336	1 100	214	34	1	4 666	2 341
Ash and residues	120 293	116 235	134 320	70 557	84 823	4 660	7 021	10 418	6 308	7 760
Unwrought	98 731	102 510	93 052	78 205	80 937	234 852	246 358	203 607	152 694	186 044
Unwrought alloys	6 036	6 423	5 916	5 362	1 525	15 387	16 155	14 212	10 893	3 864
Scrap	781	676	781	984	1 402	1 079	1 109	1 204	1 088	1 538
<i>Exports</i>										
Ores & concentrates	16 019	23 192	18 669	20 848	20 612	9 443	12 154	9 494	9 202	9 381
Ash and residues	6 761	5 687	6 605	4 005	6 040	10 865	9 021	8 326	5 310	9 160
Unwrought	3 411	6 016	4 012	3 621	84	7 658	14 360	8 664	7 118	475
Unwrought alloys	26 724	24 687	20 069	14 853	10 357	67 702	63 093	44 403	28 896	24 687
Scrap	3 294	3 257	5 477	4 443	7 111	6 092	5 766	8 169	6 470	12 253

Zirconium

United Kingdom summary 2017-2021

Commodity	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
	Tonnes					£ thousand				
Zirconium										
<i>Apparent consumption</i> (a)	3 000	3 000	2 000	2 000	1 500					
<i>Imports</i>										
Ores and Concentrates (b)	7 524	8 060	6 589	6 836	5 546	8 078	11 427	10 681	10 508	8 271
Scrap	130	206	184	61	40	893	2 048	1 606	495	548
Unwrought	169	88	151	129	70	5 365	2 821	5 186	4 081	1 484
Wrought	50	29	53	39	48	1 343	2 612	3 642	2 659	3 567
<i>Exports</i>										
Ores and concentrates	1 127	1 461	1 165	1 112	1 316	2 825	3 974	3 349	2 710	2 400
Scrap	34	109	152	65	104	448	1 273	1 609	832	1 422
Unwrought	4	14	2	3	5	378	465	234	275	265
Wrought	4	13	14	19	2	222	559	405	811	333

(a) BGS estimates; see explanatory notes.

(b) Mainly zircon.