

NATURAL GRAPHITE END-USE STATISTICS¹
U.S. GEOLOGICAL SURVEY
 [Metric tons]

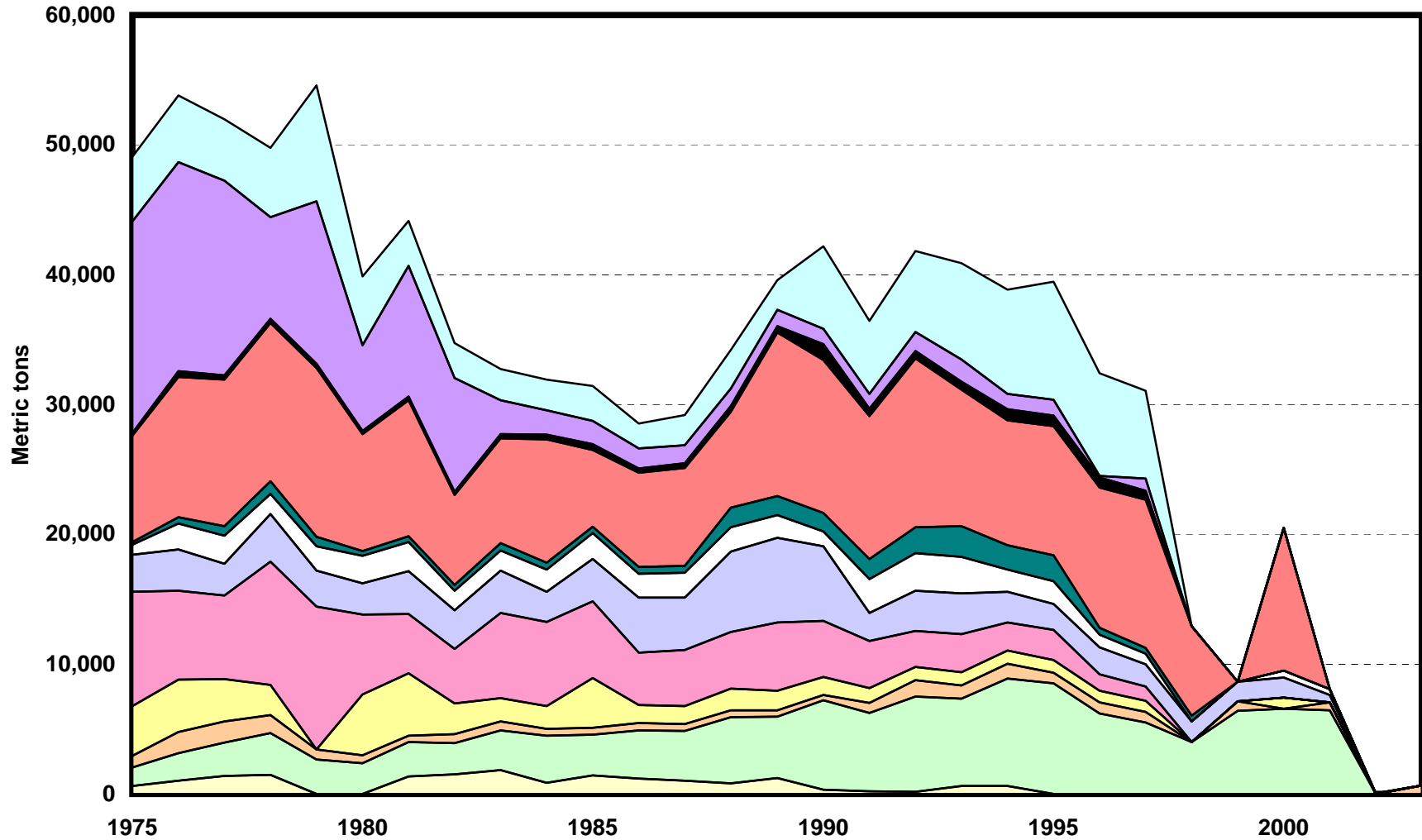
Last modification: September 15, 2005

Year	Batteries	Brake linings	Carbon products	Crucibles, retorts, stoppers, sleeves, nozzles	Foundries	Lubricants	Pencils	Powder metals	Refractories	Rubber	Steelmaking	Other	Total	Undistributed	Apparent consumption
1975	627	1,410	897	3,820	8,810	2,850	796	175	8,200	207	16,300	4,990	49,100	929	50,000
1976	1,030	2,120	1,610	4,030	6,850	3,210	1,970	501	10,800	463	16,100	5,110	53,800	6,920	60,700
1977	1,370	2,600	1,600	3,260	6,460	2,450	2,150	717	11,300	326	15,000	4,730	52,000	14,900	66,900
1978	1,450	3,250	1,370	2,330	9,490	3,670	1,550	967	12,200	321	7,830	5,350	49,800	32,200	82,000
1979	W	2,630	796	W	11,000	2,770	1,870	762	13,000	317	12,500	8,950	54,600	15,800	70,400
1980	W	2,370	592	4,710	6,160	2,380	2,150	363	9,000	247	6,590	5,300	39,800	7,760	47,600
1981	1,330	2,670	490	4,810	4,560	3,310	2,250	418	10,500	254	10,100	3,470	44,200	5,120	49,300
1982	1,510	2,390	691	2,380	4,180	3,000	1,510	424	6,950	241	8,760	2,700	34,700	4,070	38,800
1983	1,840	3,050	689	1,800	6,550	3,260	1,580	564	8,070	327	2,580	2,410	32,700	-1,720	31,000
1984	844	3,650	512	1,770	6,480	2,300	1,740	507	9,490	377	1,870	2,360	31,900	14,500	46,400
1985	1,420	3,150	531	3,820	5,910	3,280	1,970	521	5,900	459	1,780	2,690	31,400	8,870	40,300
1986	1,180	3,710	560	1,390	4,050	4,220	1,840	517	7,270	341	1,520	1,940	28,500	3,260	31,800
1987	1,000	3,870	526	1,370	4,340	4,000	1,930	528	7,530	371	1,390	2,320	29,200	2,430	31,600
1988	804	5,100	549	1,640	4,370	6,200	1,900	1,500	7,380	434	1,340	2,990	34,200	8,600	42,800
1989	1,240	4,710	507	1,500	5,260	6,520	1,760	1,460	12,600	478	1,250	2,300	39,600	11,300	50,900
1990	319	6,910	402	1,390	4,300	5,760	1,130	1,420	11,800	1,210	1,170	6,390	42,200	-3,520	38,700
1991	214	6,040	760	1,140	3,630	2,170	2,600	1,560	11,000	547	1,170	5,590	36,400	-22,200	14,200
1992	146	7,370	1,240	1,030	2,750	3,100	2,930	1,960	13,000	591	1,470	6,220	41,800	-12,300	29,500
1993	606	6,720	1,050	995	2,940	3,140	2,800	2,370	10,500	613	1,720	7,420	40,900	-6,100	34,800
1994	595	8,290	1,150	1,030	2,160	2,350	1,690	1,890	9,620	859	1,180	8,040	38,800	-5,900	32,900
1995	W	8,510	824	980	2,310	2,020	1,740	2,010	9,950	802	1,220	9,080	39,400	-15,900	23,500
1996	W	6,190	847	906	1,280	2,050	1,010	530	10,800	753	116	7,910	32,400	-5,000	27,400
1997	W	5,500	811	877	1,100	1,680	832	453	11,400	711	929	6,770	31,100	-12,700	18,400
1998	W	3,980	W	W	W	1,600	W	471	6,850	W	W	W	27,400	6,200	33,600
1999	W	6,380	743	W	W	1,510	W	W	W	W	W	W	34,600	-8,200	26,400
2000	W	6,580	W	821	W	1,570	520	W	11,000	W	W	W	42,200	-3,200	39,000
2001	W	6,420	612	W	W	606	416	W	W	W	W	W	33,800	-5,600	28,200
2002	W	W	W	W	W	W	W	W	W	40	W	W	39,400	-15,800	23,600
2003	W	W	652	W	W	W	W	W	W	W	W	W	39,600	-9,600	30,000

W in the spreadsheet indicates information withheld to avoid disclosing company proprietary data; withheld data were included in the "Other" category. After 1998, withheld data were included in the "Total."

¹Compiled by G.R. Matos and D.W. Olson.

End Uses of Graphite



- Batteries
- Carbon products
- Foundries
- Pencils
- Refractories
- Steelmaking
- Brake linings
- Crucibles, retorts, stoppers, sleeves, nozzles
- Lubricants
- Powder metals
- Rubber
- Other

Natural Graphite End-Use Worksheet Notes

Data Source

The source of data for the graphite end-use worksheet is the Mineral Yearbook, an annual collection, compilation, and analysis of mineral industry data, published by the U.S. Bureau of Mines and the U.S. Geological Survey.

End Use

End use is defined as the use of the mineral commodity in a particular industrial sector or product. For graphite, end-use categories are batteries; brake linings; carbon products; crucibles, retorts, stoppers, sleeves, and nozzles; foundries; lubricants; pencils; powder metals; refractories; rubber; steelmaking; and other uses. The undistributed category accounts for unreported end uses and trade data.

The carbon products category includes bearings and carbon brushes. The foundries category includes other foundries and foundry facings. The other uses category include ammunition, antiknock and other compounds, drilling mud, electrical/electronic devices, industrial diamonds, magnetic tape, mechanical products, packings, paints and polishes, seed coating, small packages, soldering-welding, and other end uses. For the years 1990 through 1994, the other uses included graphite used in other packing lubricants. After 1997, ammunition and packings were removed from the other uses category and included with the lubricants category.

W in the spreadsheet indicates information withheld to avoid disclosing company proprietary data; withheld data were included in the "Other" category. After 1998, withheld data were included in the "Total." Data are rounded to no more than three significant digits; data may not add to totals shown.

References

U.S. Bureau of Mines, 1977–96, Minerals Yearbook, v. I, 1975–94.

U.S. Geological Survey, 1997–2005, Minerals Yearbook, v. I, 1995–2003.

Recommended Citation Format:

(1) If taken from CD version:

U.S. Geological Survey, [year of last update, e.g., 2005], [Mineral commodity, e.g., Gold] statistics, *in* Kelly, T.D., and Matos, G.R., comps., Historical statistics for mineral and material commodities in the United States: U.S. Geological Survey Data Series 140, one CD-ROM. (Also available online at <http://pubs.usgs.gov/ds/2005/140/>.)

(2) If taken from online version:

U.S. Geological Survey, [year of last update, e.g., 2005], [Mineral commodity, e.g., Gold] statistics, *in* Kelly, T.D., and Matos, G.R., comps., Historical statistics for mineral and material commodities in the United States: U.S. Geological Survey Data Series 140, available online at <http://pubs.usgs.gov/ds/2005/140/>. (Accessed [date].)

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