

FIRE CLAY END-USE STATISTICS¹
U.S. GEOLOGICAL SURVEY
 [Metric tons]

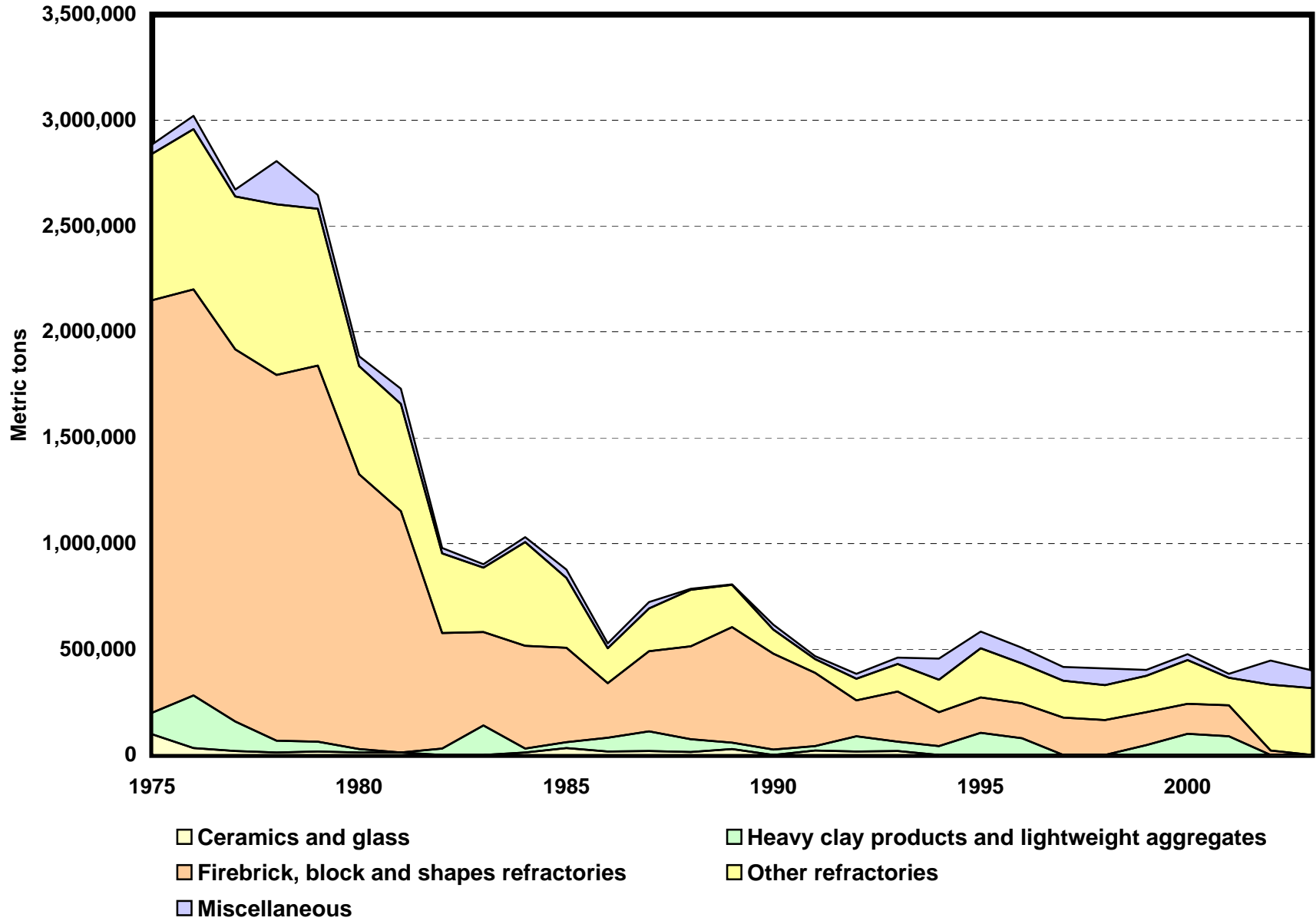
Last modification: September 15, 2005

| Year | Ceramics and glass | Heavy clay products and lightweight aggregates | Firebrick, block and shapes refractories | Other refractories | Miscellaneous | Trade adjustments | Apparent consumption |
|------|--------------------|--|--|--------------------|---------------|-------------------|----------------------|
| 1975 | 98,200 | 102,000 | 1,950,000 | 693,000 | 44,200 | -128,000 | 2,760,000 |
| 1976 | 33,600 | 247,000 | 1,920,000 | 757,000 | 63,200 | -251,000 | 2,770,000 |
| 1977 | 18,800 | 139,000 | 1,760,000 | 722,000 | 32,600 | -265,000 | 2,410,000 |
| 1978 | 10,800 | 56,500 | 1,730,000 | 805,000 | 205,000 | -188,000 | 2,620,000 |
| 1979 | 15,500 | 46,200 | 1,780,000 | 741,000 | 64,200 | -186,000 | 2,460,000 |
| 1980 | 11,400 | 16,300 | 1,300,000 | 510,000 | 46,300 | -264,000 | 1,620,000 |
| 1981 | 11,800 | 544 | 1,140,000 | 507,000 | 72,000 | -243,000 | 1,490,000 |
| 1982 | W | 29,500 | 548,000 | 376,000 | 24,600 | -155,000 | 823,000 |
| 1983 | W | 140,000 | 440,000 | 306,000 | 15,500 | -105,000 | 797,000 |
| 1984 | 10,500 | 20,100 | 485,000 | 490,000 | 24,000 | -199,000 | 831,000 |
| 1985 | 32,600 | 27,800 | 446,000 | 330,000 | 40,700 | -195,000 | 682,000 |
| 1986 | 15,900 | 66,300 | 257,000 | 165,000 | 24,200 | -163,000 | 365,000 |
| 1987 | 18,700 | 92,200 | 379,000 | 203,000 | 29,400 | -151,000 | 571,000 |
| 1988 | 14,600 | 60,500 | 439,000 | 266,000 | 6,220 | -247,000 | 539,000 |
| 1989 | 26,900 | 30,900 | 547,000 | 199,000 | 3,350 | -265,000 | 542,000 |
| 1990 | W | 26,000 | 453,000 | 114,000 | 23,800 | -204,000 | 413,000 |
| 1991 | 21,000 | 21,000 | 346,000 | 66,000 | 14,000 | -193,000 | 275,000 |
| 1992 | 16,300 | 71,300 | 170,000 | 103,000 | 22,800 | -220,000 | 163,000 |
| 1993 | 19,100 | 43,700 | 236,000 | 130,000 | 31,100 | -148,000 | 312,000 |
| 1994 | W | 42,700 | 160,000 | 153,000 | 100,000 | -224,000 | 232,000 |
| 1995 | W | 104,000 | 168,000 | 232,000 | 78,400 | -279,000 | 303,000 |
| 1996 | W | 78,800 | 166,000 | 188,000 | 72,800 | -296,000 | 210,000 |
| 1997 | W | W | 176,000 | 175,000 | 65,000 | -223,000 | 193,000 |
| 1998 | W | W | 166,000 | 165,000 | 78,900 | -166,000 | 244,000 |
| 1999 | W | 47,400 | 154,000 | 172,000 | 28,800 | -189,000 | 213,000 |
| 2000 | W | 101,000 | 140,000 | 208,000 | 26,900 | -216,000 | 260,000 |
| 2001 | W | 88,200 | 146,000 | 131,000 | 18,300 | -239,000 | 145,000 |
| 2002 | W | W | 20,400 | 312,000 | 114,000 | -251,000 | 195,000 |
| 2003 | W | W | W | 317,000 | 83,300 | -285,000 | 115,000 |

W Withheld to avoid disclosing company proprietary data; data included in the miscellaneous category.

¹Compiled by G.R. Matos and R.L. Virta.

End Uses of Fire Clay



Fire Clay End-Use Worksheet Notes

Data Source

The source of data for the fire clay end-use worksheet is the Minerals 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 fire clay sold or used by producers, end-use categories are ceramic and glass; heavy clay products and lightweight aggregates; firebrick, block, and shape refractories; other refractories; and miscellaneous uses. The trade adjustments category includes imports for which fire clay applications are unknown and discrepancies of exports reported by producers and exports reported by the U.S. Census Bureau.

The largest current use for fire clay is refractory products. Sales for refractory applications have been affected by steel production and changes in refractory markets. Demand for fire brick, the largest market, began to decline prior to 1975 and has continued to decline because of a growing preference for monoliths, which are spray-on refractory furnace coatings, as opposed to hand-laid fire brick furnace linings. Sales of fire clay for refractory mortars and cements, while declining since the early 1970s, have remained strong in recent years.

W in the spreadsheet indicates information withheld to avoid disclosing company proprietary data; data included in the miscellaneous category. A negative number in the trade adjustments category indicates net exports of fire clay. Data were 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].)

For more information, please contact:

[USGS Clays Commodity Specialist](#)