CLAYS

(Data in thousand metric tons, unless otherwise noted)

<u>Domestic Production and Use</u>: In 2000, clays were produced in all States except Alaska, Delaware, Hawaii, Idaho, New Hampshire, Rhode Island, Vermont, and Wisconsin. A total of 233 companies operated approximately 650 clay pits or quarries. The leading 20 firms supplied 50% of the tonnage and 77% of the value for all types of clay sold or used in the United States. U.S. production was estimated to be 40.7 million metric tons valued at \$1.56 billion. Major domestic uses for specific clays were estimated as follows: ball clay—29% floor and wall tile, 24% sanitaryware, 10% pottery, and 37% other uses; bentonite—24% foundry sand bond, 22% pet waste absorbent, 18% drilling mud, 15% iron ore pelletizing, and 21% other uses; common clay—56% brick, 20% cement, 16% lightweight aggregate, and 8% other uses; fire clay—81% refractories and 19% other uses; fuller's earth—72% absorbent uses, 8% fertilizer and pesticide carriers, and 20% other uses; and kaolin—56% paper, 11% refractories, and 33% other uses.

| Salient Statistics—United States:1 | <u> 1996</u> | <u> 1997</u> | <u>1998</u> | <u> 1999</u> | 2000 ^e |
|--------------------------------------|--------------|--------------|--------------|--------------|-------------------|
| Production, mine: | | | | | |
| Ball clay | 935 | 1,060 | 1,130 | 1,200 | 1,220 |
| Bentonite | 3,740 | 4,020 | 3,820 | 4,070 | 4,080 |
| Common clay | 26,200 | 24,600 | 24,500 | 24,800 | 23,600 |
| Fire clay ² | 505 | 415 | 410 | 402 | 442 |
| Fuller's earth | 2,600 | 2,370 | 2,350 | 2,560 | 2,530 |
| Kaolin | <u>9,180</u> | 9,280 | <u>9,450</u> | <u>9,160</u> | <u>8,870</u> |
| Total ³ | 43,100 | 41,800 | 41,600 | 42,200 | 40,700 |
| Imports for consumption | 45 | 64 | 86 | 90 | 97 |
| Exports | 4,830 | 5,080 | 5,230 | 4,800 | 5,060 |
| Consumption, apparent | 38,300 | 36,800 | 36,500 | 37,500 | 35,700 |
| Price, average, dollars per ton: | | | | | |
| Ball clay | 44 | 47 | 45 | 40 | 40 |
| Bentonite | 36 | 42 | 46 | 43 | 43 |
| Common clay | 5 | 6 | 6 | 6 | 7 |
| Fire clay | 21 | 19 | 18 | 16 | 22 |
| Fuller's earth | 106 | 107 | 109 | 90 | 90 |
| Kaolin | 120 | 111 | 111 | 104 | 107 |
| Stocks, yearend⁴ | NA | NA | NA | NA | NA |
| Employment, number: Mine | 4,900 | 4,900 | 4,800 | 4,700 | 4,600 |
| _ Mill | 4,500 | 4,500 | 4,500 | 4,300 | 4,300 |
| Net import reliance⁵ as a percent of | | | | | |
| apparent consumption | E | E | E | E | E |

Recycling: Insignificant.

Import Sources (1996-99): Brazil, 35%; Mexico, 23%; United Kingdom, 21%; Canada, 8%; and other, 13%.

| Tariff: Item | Number | Normal Trade Relations 12/31/00 |
|------------------------------------|--------------|------------------------------------|
| Kaolin and other kaolinitic clays, | | <u></u> |
| whether or not calcined | 2507.00.0000 | Free. |
| Bentonite | 2508.10.0000 | Free. |
| Fuller's and decolorizing earths | 2508.20.0000 | Free. |
| Fire clay | 2508.30.0000 | Free. |
| Common blue and other ball clays | 2508.40.0010 | Free. |
| Other clays | 2508.40.0050 | Free. |
| Chamotte or dina's earth | 2508.70.0000 | Free. |
| Activated clays and earths | 3802.90.2000 | 2.5% ad val. |
| Expanded clays and mixtures | 6806.20.0000 | Free. |

<u>Depletion Allowance</u>: Ball clay, bentonite, fire clay, fuller's earth, and kaolin, 14% (Domestic and foreign); clay used in the manufacture of common brick, lightweight aggregate, and sewer pipe, 7.5% (Domestic and foreign); clays used in the manufacture of drain and roofing tile, flower pots, and kindred products, 5% (Domestic and foreign); clay used for alumina and aluminum compounds, 22% (Domestic).

Government Stockpile: None.

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Events, Trends, and Issues: The amount of clay and shale sold or used by domestic producers decreased 4% in 2000. Small increases were reported for ball clay, bentonite, and fire clay. Common clay, fuller's earth, and kaolin declined. Imports for consumption increased to 97,000 tons in 2000 from 90,000 tons in 1999. Imports of kaolin from Brazil continued to rise, increasing from less than 1,000 tons in 1996 to a projected 53,000 tons in 2000. Brazil, Mexico, and the United Kingdom were the major sources for imported clays. Exports increased to 5.06 million tons in 2000 from 4.80 million tons in 1999. Canada, Finland, Japan, and the Netherlands were major markets for exported clays.

World Mine Production, Reserves, and Reserve Base: Not available.

<u>World Resources</u>: Clays are divided for commercial purposes into ball clay, bentonite, common clay, fire clay, fuller's earth, and kaolin. Resources of these types of clay are extremely large except for lesser resources of high-grade ball clay and sodium-bentonite. Resources of kaolin in Georgia are estimated to be 5 to 10 billion tons.

<u>Substitutes</u>: Limited substitutes and alternatives, such as calcium carbonate and talc, are available for filler and extender applications.

^eEstimated. E Net exporter. NA Not available.

¹Excludes Puerto Rico.

²Refractory uses only.

³Data may not add to total shown because of independent rounding.

⁴Data on stocks are not available and are assumed to be zero for apparent consumption and net import reliance calculations.

⁵Defined as imports - exports + adjustments for Government and industry stock changes.