U.S. Cement Industry: Plant Information Summary

December 31, 2022

SAMPLE

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U.S. Portland Cement Industry:

Plant Information Summary

December 31, 2022

Market Intelligence Group

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U.S. Executive Summary

The U.S. cemen facilities) operatin sh grinding

.

The 2022 plant s he number of clinker producing decade ago. However, the ave s greater than the 2019 report. This g domestic cement manufact

Major changes w

U.S. cement man

As of December

Results presented in this report were obtained from the annual survey of cement plant operations conducted by the Market Intelligence Group of the American Cement Association. All clinker capacity, finished grinding capacity, and ownership are reported as of December 31, 2022. Plant modernization and expansion plans reflect only publically announced plans through December 2023. Types of cement produced and fuels used pertain to production during the entire year. Plants producing exclusively or near exclusively Blended Type IL cement may have reported blended cement characteristics instead of ASTM C150 cement characteristics under Table 16.

TABLE 1

U.S. HISTORICAL DATA SUMAMRY

(Tonnage reported in Metric Tons)

	1974	1990	1991	1992	1993	1994	1995	1996	1997	1998
Daily Clinker Capacity *(Tons)*										
Annual Clinker Capacity *(000*										
Total										
Gray										
White										
Wet										
Dry										
Finish Grinding Capacity *(000*										
Total										
Gray										
White										
Grinding Only										
Number of Kilns										
Total										
Wet										
Dry										
Average Capacity Per Kiln *(000 Tons)*										
Average Kiln Startup/Modern										
Number of Kilns										
Kiln Capacity										
Primary Kiln Fuel *(Inc. gray & w*										
% of plants - coal&coke										
% of plants - natural gas										
% of plants - oil										
% of plants - multiple fuel										
Number of Plants										
Total										
Gray										
White										
Grinding Only										
Concentration Ratio[(1)]										
of Top 5 Firms										
of Top 10 Firms										

(1) Company capacity as percent of to

**Plant Information Summary went to*

1999	2000	2001	2002	2003	2004*	2006	2008	2010	2013	2016	2019	2022

TABLE 2

CAPACITY EXPANSIONS

(Clinker; 000 Metric Tons)

SUMMARY OF KILN ADDITIONS

Company	City	State	Clinker
2022			
2023			

TABLE 3

U.S. INDUSTRY UPDATE

2020

SAMPLE

TABLE 4

U.S. RETIRED CEMENT FACILITIES

(000 Metric Tons)

Company	City	State	Grinding	Clinker

CAPACITY Total Rep

Active Clinker Capac

TABLE 6

UNITED STATES CEMENT PLANT INFORMATION SUMMARY

(Includes Gray and White Plants)

KILN AGE SUMMARY

(Capacities in 000 Tons)

Age	Number of Kilns	Clinker Capacity	Average Capacity Per Kiln
AFTER 1980			
1976 - 1980			
1971 - 1975			
1966 - 1970			
1961 - 1965			
1956 - 1960			
1951 - 1955			
1946 - 1950			
1941 - 1945			
1936 - 1940			
1931 - 1935			
BEFORE 1931			
Totals:			
AFTER 1980			
1976 - 1980			
1971 - 1975			
1966 - 1970			
1961 - 1965			
1956 - 1960			
1951 - 1955			
1946 - 1950			
1941 - 1945			
1936 - 1940			
1931 - 1935			
BEFORE 1931			
Totals:			
AFTER 1980			
1976 - 1980			
1971 - 1975			
1966 - 1970			
1961 - 1965			
1956 - 1960			
1951 - 1955			
1946 - 1950			
1941 - 1945			
1936 - 1940			
1931 - 1935			
BEFORE 1931			
Totals:			

AVERAGE KILN AGE (Year)	**WET**	**DRY**	**TOTAL**
BASED ON NUMBER OF KILNS			

TABLE 7

UNITED STATES FUEL USAGE SUMMARY

(Includes Gray and White Plants)

TYPE OF FUEL	Number of Plants	Clinker Capacity *(000 Tons)*	Percent of Total Capacity
PRIMARY FUEL			
Coal			
Natural Gas			
Coal, Natural Gas			
Coke			
Coal, Coke			
Alternative Fuel			
Coal, Natural Gas, Coke			
Natural Gas, Coke			
Coal, Oil, Coke			
Oil, Coke			
Oil			
Natural Gas, Coke, AF			
Coal, AF			
Coke, AF			
Total:			
SECONDARY FUEL			
Alternative Fuel			
Coal			
Natural Gas			
Natural Gas, AF			
Coal, AF			
Oil			
Coke, AF			
Natural Gas, Coke, AF			
Coke			
Coal, Oil, AF			
Coal, Natural Gas, AF			
Oil, AF			
Oil, Natural Gas, Coke, AF			
Totals:			

AF=Alternative Fuel

TABLE 8

PLANTS UTILIZING ALTERNATIVE FUELS

As a Primary Fuel:

As a Secondary Fuel:

TABLE 9

UNITED STATES CEMENT COMPANY CLINKER CAPACITIES

(Includes Gray and White Plants)

Rank	Clinker *(000 Tons)*	Percent Industry	Company Name

TABLE 10

UNITED STATES CEMENT COMPANY GRINDING CAPACITIES

(Includes Gray and White Plants)

Rank	Finish Grinding *(000 Tons)*	Percent Industry	Company Name

TABLE 11

UNITED STATES CLINKER CAPACITIES BY STATE

(Includes Gray and White Plants)

Rank	Clinker *(000 Tons)*	Percent Industry	State

THERE ARE NO CLINKER PRODUCING PLANTS IN THE FOLLOWING STATES

TABLE 12

UNITED STATES GRINDING CAPACITIES BY STATE

(Includes Gray, White and Grinding Plants)

Rank	Finish Grinding *(000 Tons)*	Percent Industry	State

THERE ARE NO CEMENT PRODUCING PLANTS IN THE FOLLOWING STATES

TABLE 13

UNITED STATES GRAY CEMENT PLANT CLINKER CAPACITIES

Rank	Clinker *(000 Tons)*	Percent Industry	Name - Location

TABLE 14

UNITED STATES GRAY CEMENT PLANT GRINDING CAPACITIES

Rank	Finish Grinding *(000 Tons)*	Percent Industry	Name - Location

Table 15

U.S. Cement Company Capacity

and

Ownership

Company/ Owner	Number of Plants	Annual Grinding Capacity *(000 Tons)*	Annual Clinker Capacity *(000 Tons)*

Table 16

U.S. Cement Plant Detail

Primary Fuel Codes: C - Coal O - Oil G - Gas K - Coke A - Alternative

Alternative Fuel Codes: A - Oil B - Solvents C - Tire Derived D - Waste Derived E - Hazardous F - Renewable G - Other Solid H - Other

Secondary fuel codes are shown in parenthesis ( ) following the primary fuel code(s).
Alternative fuel codes are shown in brackets [ ] below the fuel code(s).

Process Codes: X - Preheater C - Precalciner

Gray Cement

Mill Data - Number of Mills:	Year Began	Mill Grinding Capacity Tons/Hour	Tons/Yr (000)	Roller Press Used

Types of Cement Produced:

Predominant Cement Produced:

Characteristics of Most	**% Clinker**	**% Gypsum**	**% Limestone**
Common ASTM C150 Cement:	**% Inorganic Processing Addition**		**% Other**

Table 17

U.S. Cement Plant Detail

by State

Primary Fuel Codes: C - Coal O - Oil G - Gas K - Coke A - Alternate

Alternate fuel codes are shown in parenthesis ( ) following the primary fuel code(s).

Alternative Fuel Codes (AF): A - Oil B - Solvents C - Tire Derived D - Waste Derived E - Hazardous F - Renewable G - Other Solid H - Other

Process Codes: X - Preheater C - Precalciner

Inactive kilns are identified by [I] following the kiln year.

There are no cement-producing plants in the following states:

U.S. CEMENT PLANT INFORMATION SUMMARY BY STATE

(Gray Cement)

PLANT DATA			KILN DATA					
							Clinker Capacity	
Plant Location	No. Kilns	Finish Grinding Capacity (000 Tons)	Year	Fuel	AF	Process	(Tons/ Day)	(000 Tons/ Year)
ALABAMA								
SAMPLE								
State Totals:								
ARIZONA								

U.S. CEMENT PLANT INFORMATION SUMMARY BY STATE

(White Cement)

PLANT DATA			KILN DATA					
							Clinker Capacity	
Plant Location	No. Kilns	Finish Grinding Capacity (000 Tons)	Year	Fuel	AF	Process	(Tons/ Day)	(000 Tons/ Year)
PENNSYLVANIA								

Total USA (White):								
GRAND TOTAL USA:								

ALTERNAT rgy to either supplement ion.

ANDHYDRI as been removed, u , soluble or insoluble an

BAUXITE: ca and ferric oxide. It is a as an alumina sou

BLAST FU uminosilicates of calcium a n a blast furnace.

BOTTOM A boiler for removal an

CEMENT: A nd separate materials in

CKD: Ceme ponents of the final pro that are collected in aw feed in cement ma ing as an agricultural

CLAY: An i m silicates and their co ineral groups.

CLINKER: nt)

CLINKER C e per day given a real l downtime days. Norm , repair or clean-up. C

COAL: A re erent moisture, c f carbonaceo d, chemically altered, and

COKE: In th that is the final produc t is reported as marketa eous residue derived fro en off by baking in an esidual ash are fused to last furnace. Coke from c

DRY PROC nveyed, blended an

FINISH GRI 3 to 6 percent gypsum.

FINISH GRI iven a realistic wor

FINISH MIL
(1) Usually
(2) The ent

FLY ASH: R y be used (1) as an argilla te depending upon carbon

GRINDING prior to “Ball Mills”]

GYPSUM: H range of about 3 to 6

HYDRAULI

INORGANIC facturing process, fac haracteristics, reducing the stics. These materials ar d stored.

KILN: Equip ture of about 1450 degree

LIMESTON cturing. Also used as an i

MAGNETIT

MARL: A lo n marine shells.

MILL SCAL sed as a component

NATURAL or bored wells. Consi ogen, oxide of carbon, nitro

OIL: A mixtu ols or reservoirs, b lease condensate, natural gas plant liquids. unds, such as additives an

PORTLAND raulic silicates, us dition. Gray in color unle

PRECALCIN s with
separate burn ce,
calciner, calci

PRECALCIN ich cement
raw meal is h clonic
preheater.

PREHEATE per to
improve over pension
Parallel Flow e,(5)
Fluidized Bed) Chains,
or (3) Crosse

ROTARY KIL arge end,
for burning ce internal
heat exchang rocess),
Preheating Z ed in
conjunction w d.

SHALE: Roc de, but low
in lime. Used

SOLVENTS: Example
applications i ctant.

SYNTHETIC r limestone
with gaseous oxide
emissions at be used at
portland cem o control
the setting of

WET PROCE umping
cement raw emely wet
and sticky, w

WHITE CEM aw
materials (su elements.

U.S. HYDRAULIC CEMENT

Portland Cement Types

I Normal

g

Blend

Blend

Blend

Blend

Hydra

Hydra

Hydra

Hydra

Hydra

Hydra

Color

Expan

Grouti

Oil We ells

Mason

Morta

Plasti est)

White

* Optio –
High S

Company Plant Contact	Address Phone Number	City	State	Zip Code

United States Portland Cement Plant Locations