

# Fourth Quarter 200x Survey of Portland Cement Consumption by User Group

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The intention of this report is to help evaluate cement promotion opportunities and the promotional effectiveness of the Portland Cement Association and allied organizations.

**SAMPLE**

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## 200x Survey of Portland Cement Consumption

The Portland Cement Association's (PCA's) Market Research department conducted a survey of portland cement consumption by user group.

Eighteen markets were examined. For 200x, in response to survey participants' input, a few changes have been made to the survey. The SC/RCC Paving User Group has been split into three (SC Paving, RCC Paving, and FDR Paving), The Railroad Tie User Group was eliminated and all tonnages are being included in Prestressed.

- Building Materials Dealers
- Brick & Block
- Fiber-Cement Siding
- Concrete Pipe
- Concrete Roof Tile
- Interlocking Pavers
- Oil & Gas Well Drilling
- Packaged Product Producers
- Precast
- Prestressed Concrete
- Ready-Mixed Concrete
- FDR Paving
- SC Paving
- RCC Paving
- SC/RCC-Water Resources
- Streets & Highways Contractors
- Waste Solidification & Stabilization
- All Other Manufacturers and Contractors

Information on cement kiln dust (CKD) for soil-cement paving, waste solidification and stabilization (S/S), and other (used in a productive manner) was also collected. Beginning in 200x, CKD data is now being collected by state.

This report includes data from surveys conducted over the past ten years. Survey forms were sent to all member and non-member companies in North America. All totals include both U.S. and Canadian data. All cement tonnage figures are adjusted to estimate for non-reporting cement companies. Cement tonnage figures are reported in metric tons.

**Please note, the reporting base for this report is not identical to the base for the U.S. Geological Survey (USGS) report; therefore, PCA consumption data may not match USGS reports.**

An important aim of this report is to help evaluate cement promotion opportunities and the promotional effectiveness of the Portland Cement Association and allied organizations.

## Reporting Companies:

The following companies reported for the Fourth Quarter 200x:

*Alamo Cement*

*Alaska Basic Industries*

*Ash Grove*

*Buzzi Unicem*

*California Portland*

*Capitol Aggregates*

*Cemex*

*Ciment Quebec*

*Continental Cement*

*Dragon Products*

*Eagle Material-IL*

*Essroc*

*Essroc Canada*

*Giant*

*Glacier Northwest*

*GCC of America*

*Holcim*

*Lafarge*

*Lafarge Canada*

*Lehigh*

*Mitsubishi*

*Monarch*

*National Cement*

*Salt River Materials*

*St. Mary's*

*Texas-Lehigh*

*Titan*

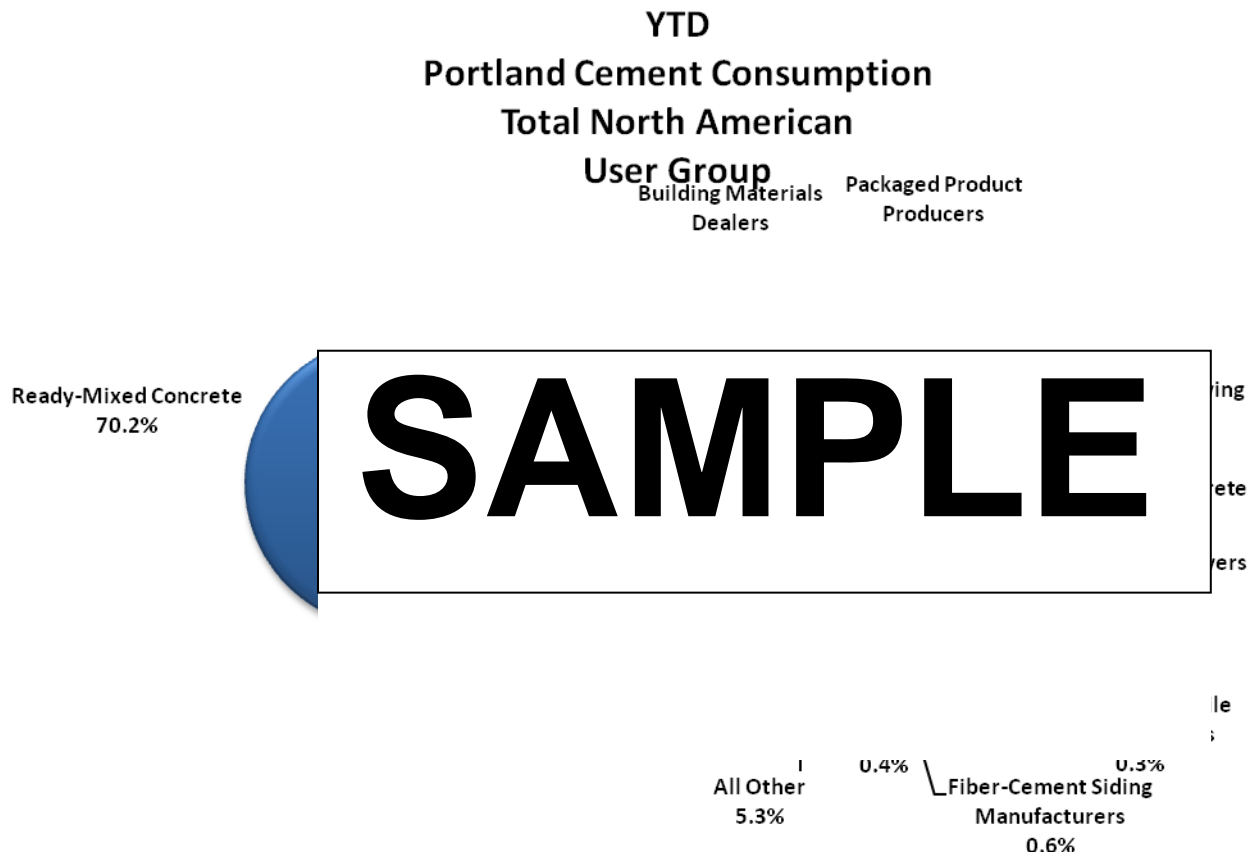
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# Portland Cement Consumption Data

## Fourth Quarter 200x

Information regarding portland cement consumption by North American user groups during the fourth quarter of 200x is reported below. Cement consumption for the fourth quarter of 200x was 18,332,300 metric tons (mt), down 22% from 200x's fourth quarter. For 200x, Ready-Mixed Concrete is the largest consumer with 70.2% of total consumption, followed by All Other (5.3%), Streets & Highway Contractors (4.3%), Brick & Block (3.4%), and Precast (2.7%).

When interpreting this data, it should be kept in mind that the information originated from cement companies. For example, where portland cement is consumed by the ready-mix market and used to build a street, the cement is reported here under Ready-Mixed Concrete, not under Streets & Highways Contractors.



## Portland Cement Consumption Data, Fourth Quarter 200x Summary

Total North America	4th Quarter		Full Year	
<b>Thousand of Metric Tons</b>	<h1>SAMPLE</h1>			
Building Materials Dealers				
Brick & Block				
Concrete Pipe				
Concrete Roof Tile Manufacturers				
Fiber-Cement Siding Manufacturers				
Interlocking Pavers				
Oil & Gas Well Drilling				
Packaged Product Producers				
Precast				
Prestressed Concrete				
Ready-Mixed Concrete				
SC/RCC/FDR - Paving				
SC/RCC - Water Resources				
Streets & Highways Contractors				
Waste S/S				
All Other				
<b>Total</b>				

Portland Cement Consumption by Quarter

# SAMPLE



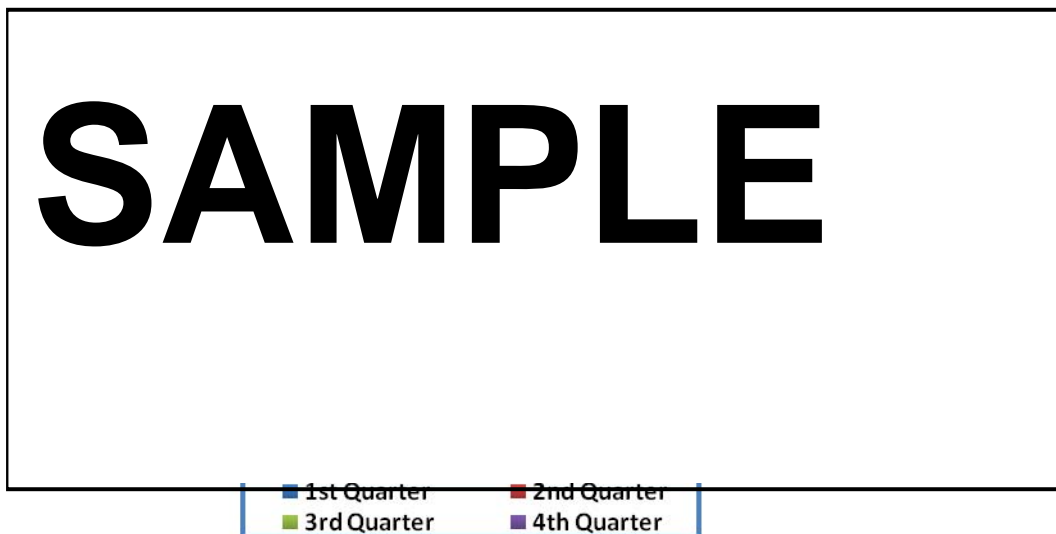
## Ready-Mixed Concrete

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Ready Mixed Concrete accounted for 70.2% of the total North American cement consumption in 200x with 12,945,931 mt. This is a 25% decrease from fourth quarter 200X. For 200X, Ready Mixed had 50,994,300 mt which was a 29% decrease from 200X.

The largest cement consumer for the Ready Mix User Group was the Rocky Mountain region with 1,710,000 mt, followed by the Great Lakes region with 1,692,000 mt.

Ready-Mixed Concrete

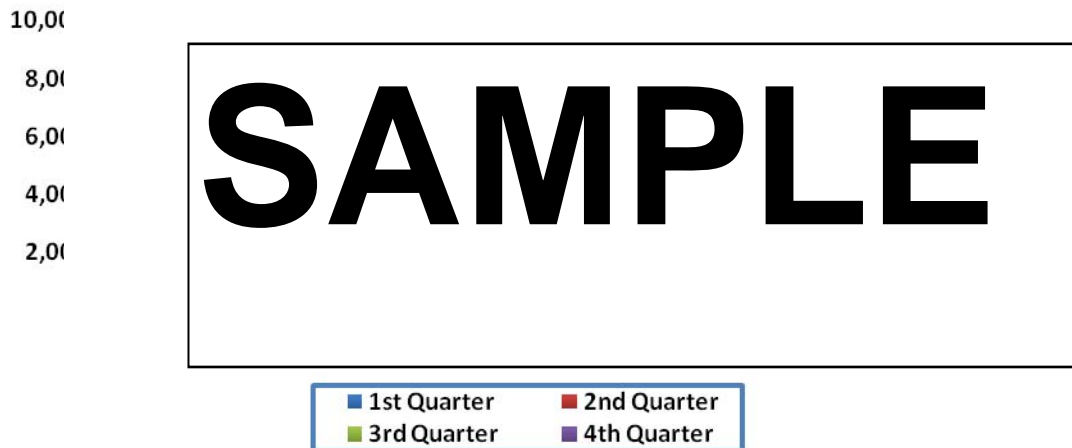


## All Other Manufacturers and Contractors

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The All Other category was the second largest user group. It includes user groups such as government municipalities, specialty chemicals, mines, and general miscellaneous. During the fourth quarter 200x portland cement consumption by all other manufacturers and contractors increased 7% from fourth quarter 200x, to approximately 930,400 mt. This group accounted for 5.3% of the total North American consumption in 200x. Some of the decreases in this category after 200x can be attributed to the creation of the Building Material Dealers, Packaged Product Producers, Prestressed, and Interlocking Pavers categories in 200x. Some cement companies may have been reporting these products in the All Other category prior to 200x. During fourth quarter 200x, the California/Nevada region was the largest cement consumer in this category with 259,000 mt, followed by Texas with 206,000 mt.

All Other Manufacturers and Contractors



## Brick & Block

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The Brick & Block category was the fourth largest user group surveyed in 200X, 3.4% of total North American consumption. Consumption accounted for 611,008 mt, down 17% from fourth quarter 200x. For all of 200X it is down 25% from 200X. This category has experienced moderate fluctuation throughout the past nine years. Some of the decrease in tonnage after 200x can be attributed to the creation of the Interlocking Pavers category in 200x, which used to be reported in the Brick & Block category. During fourth quarter 200x, the Northeast region was the largest cement consumer in this category with 95,000 mt, followed by the Southeast region with 93,000 mt.

Brick & Block

7,000  
6,000  
5,000  
4,000  
3,000  
2,000  
1,000

**SAMPLE**

■ 1st Quarter	■ 2nd Quarter
■ 3rd Quarter	■ 4th Quarter



## Precast

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Precast accounted for 2.7% of total portland cement consumption in 200X. Consumption of portland cement for the North American precast manufacturers decreased 21% to 474,400 mt during the fourth quarter of 200X, compared to the fourth quarter of 200X. For the whole year precast decreased 28% from 200X. During the fourth quarter 200X, the Northeast region was the largest cement consumer in this category with 145,000 mt, followed by the Great Lakes region with 66,000 mt. Prior to 200x, Prestressed concrete was also included in this category.

Precast

5,00  
4,00  
3,00  
2,00  
1,00

**SAMPLE**

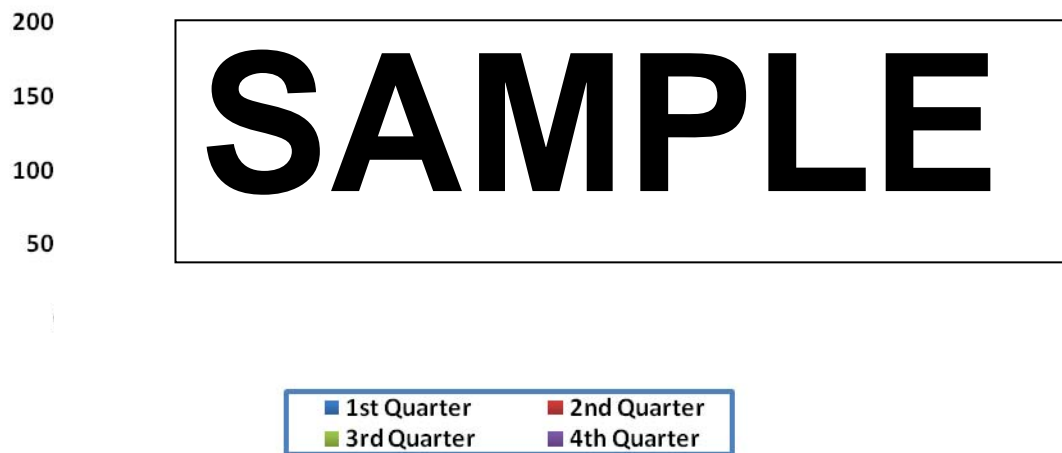
■ 1st Quarter    ■ 2nd Quarter  
■ 3rd Quarter   ■ 4th Quarter

## Prestressed Concrete

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Prestressed Concrete was added as a new category to the survey in 200x. This user group also includes tons for the Concrete Railroad Tie User Group which was eliminated in 200X. Prior to 200x, portland cement consumption for the Prestressed Concrete user group was captured either in the All Other category or the Precast category. During the fourth quarter 200X, this user group consumed approximately 243,767 mt of cement which was down 10% from fourth quarter 200X and down 30% for the whole year.

Prestressed Concrete

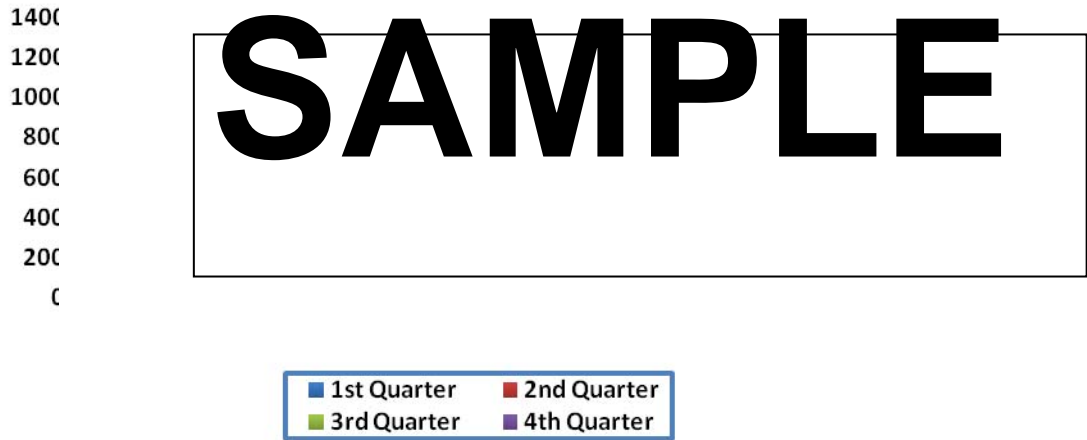


## Interlocking Pavers

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The Interlocking Pavers category was added to the survey in 200x. Consumption for this user group was previously captured within the Brick & Block and All Other categories depending upon the producer. Consumption for fourth quarter 200X was 160,900 mt, a 21% decrease from fourth quarter 200X and a 19% decrease for the whole year.

Interlocking Pavers



# Oil & Gas Well Drilling

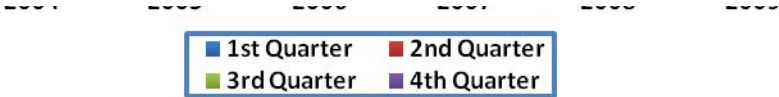
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Cement for oil & gas well drilling is made according to API specs and is used for down-hole work.

During fourth quarter 200X, consumption accounted for 356,752 mt of portland cement, which was a 19% decrease from fourth quarter 200X and a 39% for the whole year.

## Oil & Gas Well Drilling

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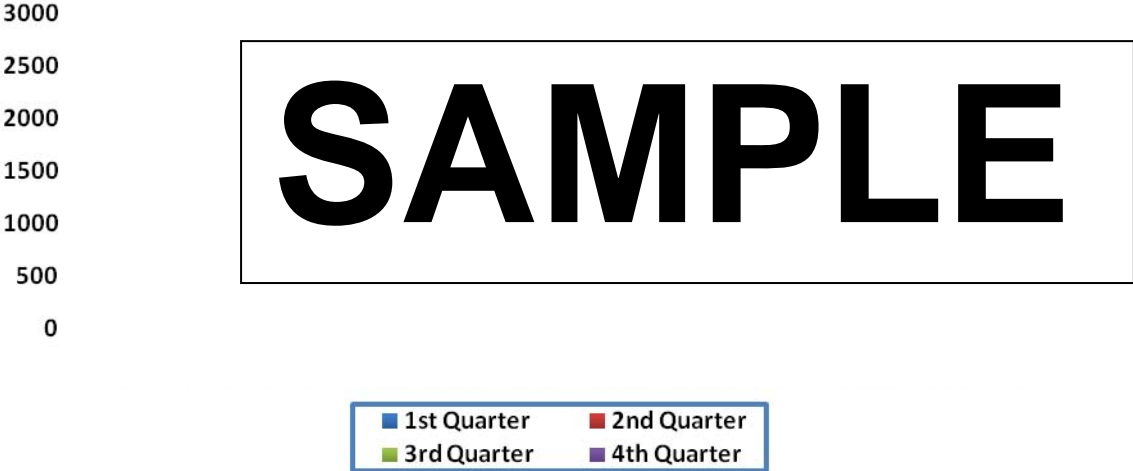


# Concrete Pipe

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Concrete Pipe consumed approximately 258,300 mt of portland cement during the fourth quarter of 200X. This was a 26% drop from fourth quarter 200X and a 27% drop for the whole year.

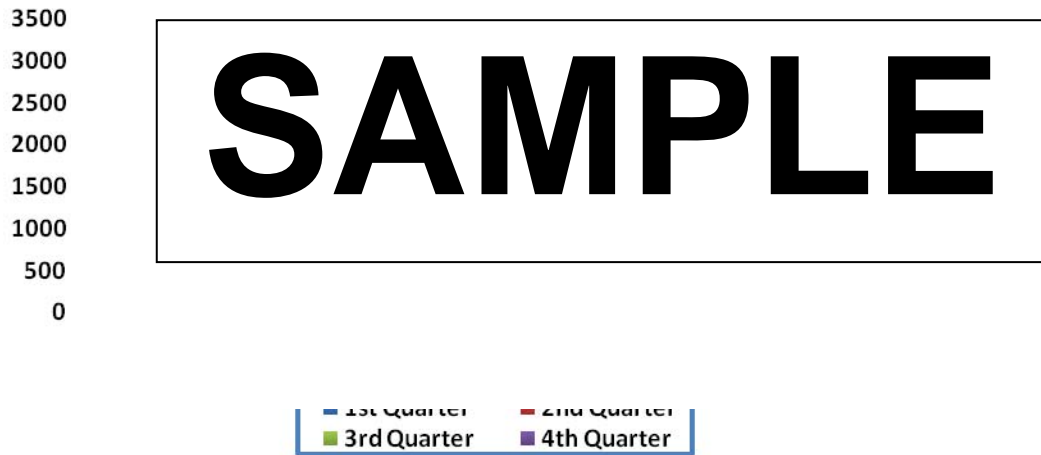
Concrete Pipe



## Packaged Product Producers (Formerly Packaged Concrete Products)

The Packaged Product Producers category includes consumption by bagged cement and mixtures (i.e., SAKRETE®, QUIKCRETE®) producers. Prior to 200x, consumption within this user group was captured in the All Other category. This user group consumed approximately 403,200 mt of portland cement during the fourth quarter of 200X, a less than 1% increase from fourth quarter 200X. For the year Packaged Products has declined by 18% from 200X. During fourth quarter 200X, the Rocky Mountain region was the largest cement consumer in this category with 84,000 mt, followed by the California/Nevada region with 82,000 mt.

Packaged Product Producers

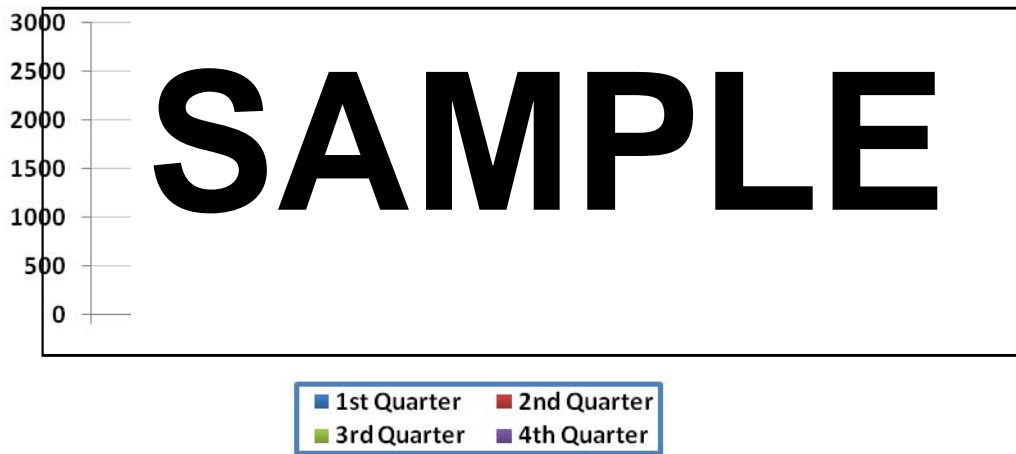


## Building Material Dealers

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This category was new to the survey in 200x. Manufactured bagged cement consumption by building material dealers such as Home Depot and Lowes is captured within this user group. Prior to 200X, consumption for this category was captured in the All Other category. This user group consumed approximately 390,600 mt of portland cement during fourth quarter 200X, a 23% decrease from fourth quarter 200X and a 23% for the whole year as well. The Northeast region was the largest cement consumer in this category with 91,000 mt, followed by Texas with 73,000 mt.

Building Materials Dealers



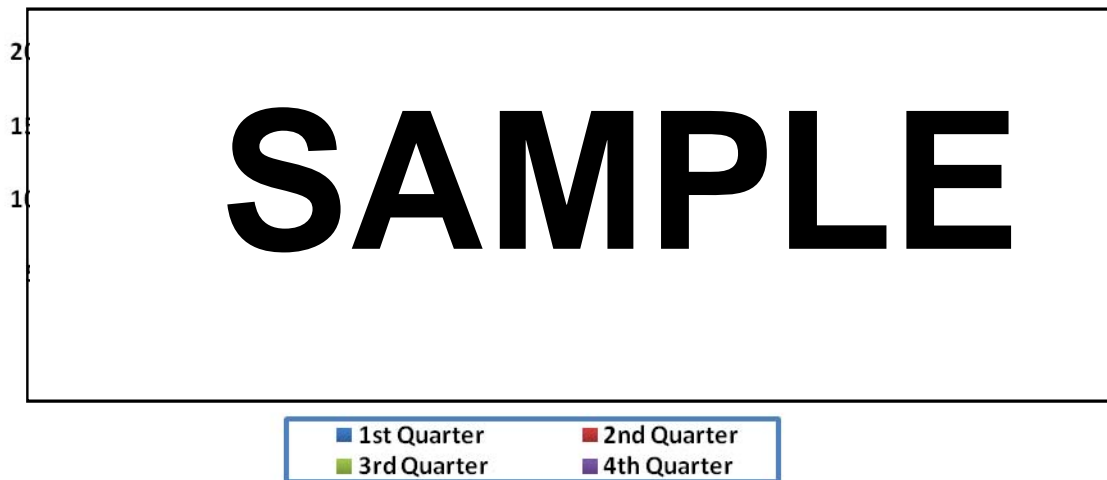
## **Soil-Cement/Roller Compacted Concrete/Full Depth Reclamation**

In 200X, cement consumption for soil-cement and roller compacted concrete paving user group have been split into three (SC, RCC, and FDR Paving), after having been combined for the year 200X. We will begin to report SC, RCC, and FDR Paving tonnages this way after all reporting companies have adjusted accordingly. SC/RCC for Water Resources will continue to be tracked as one user group.

### ***Soil-Cement/Roller Compacted Concrete/ Full Depth Reclamation for Paving***

SC/RCC/FDR Paving projects consumed approximately 460,700 mt in the fourth quarter of 2009. This was a increase of 12% from fourth quarter 200X and a 3% increase for the whole year.

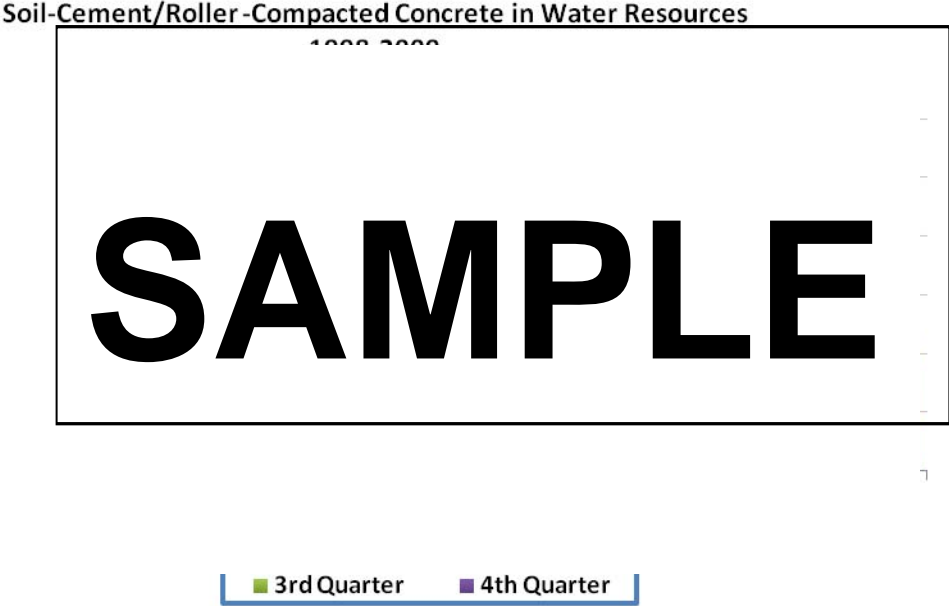
Soil Cement/Roller-Compacted Concrete/Full-Depth Reclamation in Paving





**Soil-Cement/Roller Compacted Concrete for Water Resources**

Approximately 20,800 mt of portland cement was consumed by the water resources segment during Fourth quarter 200X. Cement consumption in this user group is subject to extreme fluctuations due to the project orientation nature of the group. Past performance cannot be used as an indicator of future consumption.



# Concrete Roof Tile

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The Concrete Roof Tile user group consumed 47,600 mt of portland cement during the fourth quarter of 200X, a 175% decrease from fourth quarter 200X and a 37% decrease for the whole year.

Concrete Roof Tile  
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16  
14  
12  
10  
8  
6  
4  
2



## Streets & Highways Contractors

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The Streets & Highways Contractors was the fourth biggest user group, responsible for 4.4% of total North American consumption during the fourth quarter 200X. 766,800 mt was consumed during the fourth quarter of 200X, even from fourth quarter 200X. This was a 13% decrease from fourth quarter 200X. Streets and Highways decrease 1% from 200X to 200X.

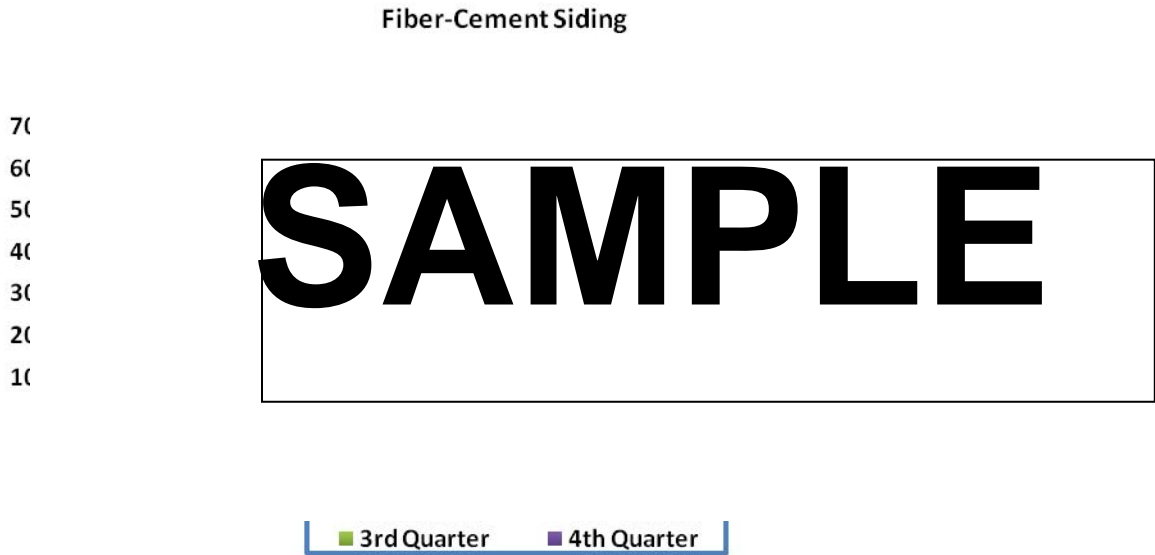
As previously noted, the reported data does not equal the total amount of portland cement used to pave streets and highways because it does not include cement used to make ready-mixed concrete, which is then used by streets and highways contractors.



## Fiber-Cement Siding

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The Fiber-Cement Siding usage group's consumption decreased 10% in the fourth quarter of 200X compared to 200X, accounting for 80,400 mt.



## Waste Stabilization & Solidification (S/S)

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Waste Stabilization & Solidification projects consumed approximately 80,800 mt of portland cement during the fourth quarter of 200X. This represented an increase of 102% from fourth quarter 200X.

Waste Stabilization & Solidification Projects

600  
500  
400  
300  
200  
100  
0

**SAMPLE**

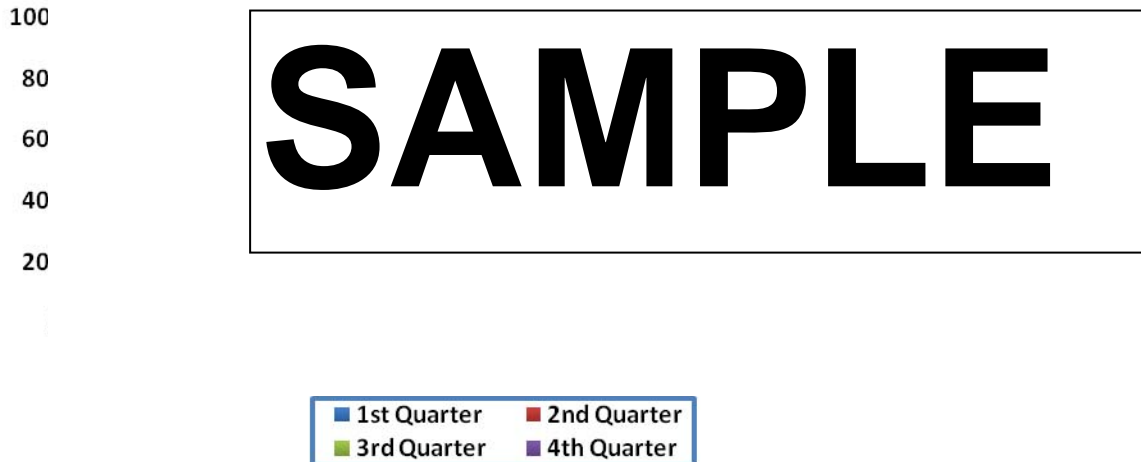


## Cement Kiln Dust (CKD)

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Cement Kiln Dust consumption totaled approximately 156,451 mt during the fourth quarter of 200X, a decrease of 18% from fourth quarter 200X.

Cement Kiln Dust



During fourth quarter 200X, cement kiln dust for soil cement projects accounted for 47% of CKD consumption, while waste stabilization projects accounted for 35%.

Cement Kiln Dust by End-Use Application  
4th Quarter 2009

Thousands of Metric Tons

