

# Ceramics

## Sector Brief

The objective of this short write-up is to provide the reader with an overview of the sector. The information covers global trade of the product, status of Pakistan's exports and summary of industry structure. Trade information for global comparisons has been obtained from PC-TAS, International Trade Centre's Database. Latest available export data on Pakistan has been obtained from the Federal Bureau of Statistics, Pakistan.

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## 1. Introduction:

Ceramics may be defined as any inorganic, nonmetallic solids processed or used at high temperatures. They are one of the three most important types of engineering materials, the other two are metals and plastics. Ceramics include such everyday materials as brick, cement, glass, and porcelain. Minerals used in making ceramic products include clay, feldspar, silica and talc.

## 2. Global Perspective:

World exports of ceramic products were US \$ 10.8 billion in the year 1999. Exports have steadily decreased over the period 1995-99 at an annual average rate of -6%. USA was the largest importer in 1999 with 19% of total global imports of Ceramics, while Germany was second with 11% share.

World Exports Ceramics (\$ million)					
Year	1995	1996	1997	1998	1999
	11,510	11,509	11,261	11,202	10,828

### 2.1. Pakistan:

Pakistan's exports of ceramics have been insignificant. In 1999 exports of all ceramic products were \$2.36 million. Pakistan's imports of ceramic products in the year 1999 were US \$ 18.8 million. 41% of total imports consisted of ceramic tiles. Mostly the ceramics industry caters to the domestic demand of numerous ceramic products including sanitary ware, floor tiles, insulators and refractories, etc.. The growth in ceramics sector is heavily dependent upon the growth of the construction sector, which in Pakistan's case has passed through an erratic growth phase during the last decade.

Pakistan Imports Ceramics in 1999 (\$ million)					
Products	Tiles	Refractories	Electric Insulators	Tableware	Sanitaryware
Imports	7.7	4.06	3.72	3.11	0.23
% of Imports	41%	22%	20%	17%	1%

Ceramics can be divided into ceramic tiles, Tableware, Refractories, Sanitaryware and Electric Insulators. The production of insulators and tiles is entirely concentrated in the organized sector, and are fully documented. However, Sanitaryware, Tableware and refractories are primarily in the unorganized sector and thus the statistics provided are estimates.

Item	HC Code
Electric Insulators	85.46
Sanitaryware	69.10
Tiles	69.08
Tableware	69.11
Refractories	69.01, 69.02

### 3. Ceramic Tiles:

The world export trend for ceramic tiles has decreased by 0.8% over the period 1995-99. However, exports of ceramic tiles in 1999 had 52% of total exports of ceramics, which indicates that ceramic tiles have been the most important of ceramic products in the world market.

World Exports (\$ million)					
Ceramic Tiles					
Year	1995	1996	1997	1998	1999
	5,650	5,651	5,569	5,777	5,604

The major exporters of tiles include Italy, which had a share of 43% in 1999 and Spain, which had a share of approximately 29%. Others included Turkey, with 3.48% and Germany with 3.16%. Notably, Mexico's exports have increased by 83% over the period 1995-99. Main importers of ceramic tiles include USA with 21% of the total imports in 1999 and Germany, which had 13% share. France had a share of 11% in 1999.

Major Exporters Tiles (\$ million)						
Countries	1995	1996	1997	1998	1999	% in 1999
Italy	2,874	2,798	2,507	2,668	2,445	43.64
Spain	1,296	1,377	1,508	1,579	1,610	28.73
Turkey	127	153	160	170	195	3.48
Germany	211	199	169	197	177	3.16
Brazil	146	142	158	159	168	3.00
Mexico	90	111	136	139	165	2.94
France	164	150	160	165	121	2.16
Portugal	101	95	96	94	92	1.64
Japan	74	59	57	54	48	0.86
Netherlands	81	66	43	35	30	0.54
Others	486	500	576	516	552	9.85

#### 3.1. Pakistan:

Pakistan's imports of ceramic tiles have increased at an annual average rate of 82% over the period 1995-1999. Major trading partner of Pakistan in ceramic tiles includes Spain, which accounted for 69% of total imports in 1999. Others include Dubai with 10% share and Italy with 8% share.

Pakistan Imports Tiles (\$ million)				
1995-96	1996-97	1997-98	1998-99	1999-2000
173	558	899	874	1,294

### 4. Tableware:

Tableware, which includes kitchenware, had experienced a fractional decrease of 0.58% in world exports over the period 1995-1999. This is the second major category in ceramic products and had a share of 20% of total exports of ceramic products in 1999.

World Exports Table ware (\$ million)				
1995	1996	1997	1998	1999
2,224	2,219	2,331	2,222	2,211

Major exporters of tableware include China, which had a share of approximately 35% in 1999 and Germany, which had a share of 16%. Important to note here is that in line with the global trend of decreasing exports, all the major players in the tableware market have had a decline in export shares except China which had experienced an annual average increase of 11%.

World Exporters Tableware (\$ million)						
Countries	1995	1996	1997	1998	1999	% in 1999
China	500	491	671	656	729	34.66
Germany	372	352	332	327	319	15.17
UK	232	262	256	195	146	6.94
France	114	112	107	110	113	5.37
Japan	199	143	131	115	109	5.18
Czech Rep	77	98	101	115	100	4.76
Poland	58	69	66	72	71	3.38
Italy	64	72	70	66	53	2.52
Thailand	36	44	45	44	49	2.33
Belgium	100	87	92	61	21	1.00
Others	331	365	330	341	393	18.69

World imports of tableware have decreased by 12% over the period 1995-99. The average rate of decrease is 3.23% per annum. Countries tend to produce ceramic products for their own domestic consumption, which is why imports and exports show a declining trend. Major importing countries include USA with 19%, Germany with 9% and Italy with 8%.

World Imports Tableware (\$ million)				
1995	1996	1997	1998	1999
1,938	1,904	1,846	1,771	1,699

#### **4.1. Pakistan:**

In 1999 Pakistan had a share of 0.02% of total world exports of tableware. The value of exports was \$0.44 million.

#### **5. Sanitary-ware:**

This category is the only one which showed some signs of growth. World exports of sanitaryware have increased by 7.4% over the period 1995-99. The average growth rate is 2% per annum.

World Exports Sanitary-ware (\$ million)					
Year	1995	1996	1997	1998	1999
	866	888	887	931	930

Major exporters of sanitaryware include Germany, which had a share of 13% in 1999 with exports of \$117 million. Spain and France had a share of 9% with exports of \$87 million. Total imports of sanitaryware in 1999 were \$911 million. Major importers of sanitaryware included Germany with 17% and USA with 11% of total imports. Other key players in the import market include Spain, France and Canada.

Major Exporters Sanitary-ware - 1999		Major Importers Sanitary-ware - 1999	
Germany	13%	Germany	16%
Spain	9%	USA	11%
France	9%	Spain	9%
Portugal	8%	France	7%
Sweden	7%	Canada	6%
USA	6%	Hong Kong	5%
UK	6%	Belgium	4%
Italy	5%	UK	4%
Others	37%	Others	38%

### 5.1. Pakistan:

Pakistan's exports of sanitaryware peaked at \$205,000 in 1998-99 and increased by 48.5% over the period 1995-2000. Pakistan exports to Saudi Arabia, Dubai and Oman i.e. Middle Eastern countries. Pakistan received contracts for exports of sanitaryware to Iraq as well as some African countries through International donor agencies, which is why exports have shown an upward trend.

Pakistan Exports Sanitary-ware in \$ '000				
1995-96	1996-97	1997-98	1998-1999	1999-2000
136	86	88	205	202

Pakistan's imports of sanitaryware have increased by 21% over the period 1995-2000. Pakistan imports from Spain, the United Kingdom and Thailand.

Pakistan Imports Sanitary-ware in \$ '000				
1995-96	1996-97	1997-98	1998-1999	1999-2000
189	124	190	399	228

### 6. Refractories:

Total world exports of refractories have decreased by 26% over the period 1995-99 i.e. from US\$ 2,252 million to US\$ 1,672 million.

Global Exports Refractories (\$million)				
1995	1996	1997	1998	1999
2252	2257	1928	1755	1672

Major exporters of refractories are Germany with a share of 26% and France with a share of 12% in 1999. All the major players exports have decreased over this time period, except China which had shown a remarkable increase of 100%.

World Exporters Refractories (\$million)						
Country	1995	1996	1997	1998	1999	% in 1999
GERMANY	642	499	461	442	436	26.08
FRANCE	270	332	281	225	206	12.32
USA	225	239	209	185	197	11.78
ITALY	136	147	135	117	116	6.94
UK	130	137	129	129	103	6.16
CHINA	58	84	104	122	116	6.94

Main importers of refractories in the world were USA with 17% of total imports of refractories and Canada with 7% of total imports. Important to note here is that Germany's imports have decreased by 41% over the period 1995-99.

World Importers Refractories (\$ million)						
Country	1995	1996	1997	1998	1999	% in 1999
USA	144	163	201	189	264	17.29
Germany	162	170	145	152	96	6.29
Canada	89	98	105	101	107	7.01
France	102	96	90	78	70	4.58

### 6.1. Pakistan:

Pakistan's exports of refractories were \$0.04 million in 1999, which were 0.0023% of total exports of refractories. Pakistan's imports in 1999 of refractories were \$4.06 million, which were 22% of total imports of Pakistan of ceramics.

### 7. Electric Insulators:

This is the smallest category in ceramic products by value of exports. Total world exports of electric insulators have decreased by 21% over the period 1995-99 and had a value of \$411 million.

World Exporters Electric Insulators (\$ million)				
1995	1996	1997	1998	1999
520	494	546	518	411

Main exporters of electric insulators are Japan, which had a share of 36% of total exports in 1999 and USA, which had a share of 14%. Germany's exports have decreased by 43% during this period.

World Exporters Electric Insulators (\$ million)						
Country	1995	1996	1997	1998	1999	% in 1999
Japan	181	187	200	160	149	36.25
Germany	65	54	55	51	37	9.00
USA	39	39	50	51	57	13.87
UK	28	19	19	26	16	3.89

Total world imports of insulators in 1999 were \$404 million. Main importers of electric insulators are USA with 16% of the total import share. Imports of Mexico have increased by approximately 200% during this period.

World Importers Electric Insulators (\$ million)						
Country	1995	1996	1997	1998	1999	% in 1999
USA	58	52	77	64	65	16.09
Korea Rep	28	34	74	49	18	4.46
Mexico	16	23	34	37	47	11.63
Canada	23	20	17	26	23	5.69

### 7.1. Pakistan:

Total exports of electric insulators in 1999 were \$ 411 million, out of which Pakistan had a share of \$1.68 million which was 0.41% of total global exports. The global trend indicated that 72% of total exports of ceramic products were concentrated in tiles and tableware.

Pakistan's exports, on the other hand, showed that 70% of total ceramic products were concentrated in electric insulators. Most of the production has catered to local demand.

### **8. Industry Structure:**

The ceramics industry in Pakistan consists of both organized and unorganized segments. Pakistan's ceramics industry provides employment to a total of 16,607 people. Tableware employed the largest number of people. The total number of units for ceramic products is 241. Areas where the units are located include Lahore, Karachi, Peshawar and Gujranwala.

<b>Pakistan Ceramic Industry</b>					
	<b>Tiles</b>	<b>Insulators</b>	<b>Sanitaryware</b>	<b>Tableware</b>	<b>Refractories</b>
<b>Status</b>	Highly Organized	Highly Organized	Organized+Un- Org	Organized+Un- Org	Un-Organized
<b>No. of Units</b>	7	1	63	150	20
<b>Total Employment</b>	2,435	465	6,000	7,500	207
<b>Installed Capacity</b>	7 million sq.m.	4500 tonnes	4.3 million pieces	99,000 tonnes	62,300 tonnes
<b>Current Production</b>	6.5 million sq. m.	2,500 tonnes	3.7 million pieces	45,000 tonnes	33,100 tonnes
<b>Capacity Utilization</b>	95%	56%	85%	45%	53%
<b>Technology Level</b>	Capital Intensive	Capital Intensive	Labour Intensive	Labour Intensive	Labour Intensive
<b>Automation Level</b>	Highly Automated	Auto, Semi & Manual	Low Automation	Org.highly Automated	Low Automation