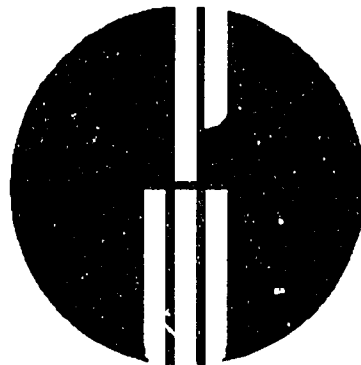


PW-ABT-976  
ISN 93047

**COMPANY PROFILES  
GLASS INDUSTRY  
REPUBLIC OF POLAND**

Price Waterhouse  
*International Privatization Group*  
1801 K Street, NW  
Washington, DC 20006

Tel: (202) 296-0800



## **GLASS COMPANIES**

### **Consumer Glass**

Huta Szkła Białystok (Białystok)  
Pienskie Huty Szkła (Piensk)

### **Flat Glass**

HSO Krakszkło  
HSO Kunice  
HSO Szczakowa

### **Packaging Glass**

HSO "Jarosław"  
HSO "Orzesze"  
Huta Szkła Pollena-Czechy (HSP Czechy)  
Huta Szkła Ujście (HS Ujście)

### **Consumer Glass Holding Company**

Huta Szkła "Hortensja"  
Huta Szkła Kryształowego "Julia"  
Huta Szkła Gospodarczego "Tarnów"  
Huta Szkła Kryształowego "Violetta"  
Huta Szkła Gospodarczego "Zawiercie"

## COMPANY PROFILE

### Huta Szkła "Białystok"

May 1992

Price Waterhouse - IPG

Address: ul. Woźniaka 8  
15-139 Białystok  
Poland  
Tel: (48-885) 75-17-23, 75-03-17  
Fax: (48-885) 75-07-38  
Tlx: 852120

Management: Dr. Jan Dorosz, Managing Director  
Mr. Józef Białkowski, Production Director

Employees: 678

Products: Handmade clear and opal lighting globes

Facilities: Two facilities -

Main facility: two eight-tonne/day gas end fired regenerative furnaces with centrifuge; two three-tonne/day electric furnaces for opal; acid etching line

Auxiliary facility: two six-tonne/day gas end fired regenerative furnace; one three-tonne/day electric for opal glass

Production: 1991 export total - 568 tonnes  
1991 domestic total - 849 tonnes

#### Financial Summary:

Figures in millions of zloty	1990	1991
Total Sales	41,658	49,123
Pre-Tax Profit	10,541	225
Net Profit (1)	3,380	(2,435)
Net Working Capital (2)	6,087	9,854
Total Debt	1,300	7,600
Total Assets	56,874	52,604

(1) Pre-tax profit less income tax, state dividend and excess wage tax ("popiwiek").

(2) Current Assets - Current Liabilities.

May 1992

Price Waterhouse - IPG

### Business Summary

Located in northeastern Poland, Białystok is one of two major Polish producers of handmade lighting glass and lamps. Sales in 1991 totalled 49.1 billion Zł, of which 30.8% were exports. Total glass production was 1,417 tonnes. The company has two separate production facilities and employs 678 workers.

The company's two main product lines in 1991 were clear and opal-colored lighting glass (81.7% of sales) and tableware (15.6% of sales). The company is also a minor producer of fiber optics, medical instrumentation glass and electric insulator glass.

Białystok designs about 70% of its products itself, with the remaining designs coming from customers. The company also conducts some decorating activities, principally hand painting and etching.

Białystok's principal foreign customers are in Italy, Germany and Scandinavia. Approximately 90% of its exports are sold directly to customers. The company has taken measures to increase exports, including hiring two sales agents on commission.

Management is capable and willing to make changes. The Managing Director is Dr. Jan Dorosz, who has been with the company for eighteen years and has a doctorate in engineering from the University of Lublin. He became Managing Director in November, 1990.

Dr. Dorosz wisely discontinued the company's tableware production, due to increased competition and declining margins, to focus more on lighting glass. He has reduced the total number of employees from 720 in 1990 to 680 and intends to further reduce the workforce by 10-15%.

### Investment Considerations

- All of Białystok's production is handmade, spanning a broad range of forms. Product quality is good.
- Exports have increased from approximately 30% of sales in 1990 to 50% of sales by mid-year 1992.
- Despite an unfavorable exchange rate for much of 1991 and poor domestic conditions, the company achieved an operating margin (EBDIAT) of 14.8%. However, net income fell to (5.0%) in 1991. This was mostly due to extraordinary costs arising from the changeover of the glassware facility to lighting globe production.
- The company has no long-term debt.

## COMPANY PROFILE

### Pieńskie Huty Szkła

May 1992

Price Waterhouse - IPG

Address: 59-930 Pieńsk  
ul. Dabrowskiego 44  
Poland  
Tel: (48) Pieńsk operator, 411, 415  
Fax: (48) Pieńsk operator, 706  
Tlx: 075594

Management: Mr. Wiesław Kuś, Acting Director  
Mr. Bitek, Technical Director

Employees: 880

Products: Handmade and automatic lighting globes, both clear and opal

Facilities: Two plants -

Main plant: two six-tonne/day coal gas fired furnaces; one three-tonne/day electric opal furnace; acid etching and sand blasting equipment.

Auxiliary plant: one electric boosted end coal gas fired furnace with two single gob feeders; one electric furnace with two gathering machines.

Production: 1991 export total - 1,427 tonnes  
1991 domestic total - 5,474 tonnes

#### Financial Summary:

Figures in millions of zloty	1990	1991
Total Sales	53,994	73,965
Pre-Tax Profit	7,891	(3,950)
Net Profit (1)	1,752	(15,335)
Net Working Capital (2)	21,394	(15,247)
Total Debt	19,810	31,983
Total Assets	102,172	108,564

(1) Pre-tax income less income tax, state dividend and excess wage tax ("popiwiek").

(2) Current Assets - Current Liabilities.

### Business Summary

Pieńskie Huty Szkła (Pieńsk) is located in the town of Pieńsk in southwestern Poland on the German border. The company is one of two major Polish producers of single and multi-layer lighting glass for lampshades, both in clear and opal-colored forms. In addition, the company is the only domestic producer of pickle jars and manufactures candleholders for the domestic market. Total sales in 1991 were 73.9 billion Zł, a 37.1% increase over 1990. Approximately 36% of sales, consisting primarily of lighting globes, were to export markets. Germany, Sweden and Denmark are the company's biggest export markets.

The company produces lighting glass products by both handmade and automatic production. This combination allows Pieńsk to produce a broad range of products in an efficient manner. Total production in 1991 was 6,901 tonnes of which 78% was produced automatically and 22% was produced by hand or semi-automatic methods. Several different hand processes enable Pieńsk to produce lighting globes which are fairly unique. Decoration processes include spray painting and high temperature curing, acid etching, hand painting (sometimes followed by frit application and firing), and decal application followed by firing.

A new furnace, with intermediate volume, mechanized pressing and blowing capability was installed at the end of 1991 at a total cost of 32 billion Zł. To date, there has been minimal production and sales from the new furnace. The company is working with the French supplier to bring the equipment fully on-line.

The company recorded a pre-tax loss of 3.9 billion Zł or (5.3)% on sales of 73.9 billion Zł in 1991. Much of the loss is due to interest payments on loans used to finance the new automatic production line.

### Investment Considerations

- Pieńsk has a low-cost, skilled labor base (average direct wage less than \$185 per month) ideal for forward integration and assembly of complete lighting units, not just glass manufacture.
- The company has a long history of expertise in the lighting glass industry, dating back to the 19th century.
- Pieńsk has the potential to significantly increase its export sales through an improvement in quality and design. The company's strategic location on the border with Germany provides ready access to the German market and Western Europe.

## COMPANY PROFILE

Kraskzko S.A.

May 1992

Price Waterhouse - IPG

Address: Kraskzko S.A.  
31-603 Kraków  
oś. Kombatantów 16  
Tel: /0-12/ 48 43 40  
Fax: /0-12/ 48 34 93  
Tlx: 0322687

Management: Mr. Józef Ciepiela, Acting Managing Director  
Ms. Halina Podolecka, Chief Accountant

Employees: 171

Products: Mirrors, Edge Polishing

Production Facilities:  
One plant  
1 Silvering line

1991 Production Output: 371,000 m<sup>2</sup>ef

### Financial Summary:

Figures in zloty millions	1990	1991
Total Sales	34,138	45,330
Pre-Tax Profit (1)	7,643	4,142
Net Profit	3,740	(2,345)
Net Working Capital (2)	2,526	(2,995)
Total Debt	95	800
Total Assets	33,593	34,665

(1) Pre-Tax Profit less income tax, state dividend and excess wages tax ("popiwiek")

(2) Current Assets - Current Liabilities

### **Business Summary**

Kraskzko is the dominant manufacturer of mirrors in Poland. The Company owns and operates from two production buildings, and is located on a prime sight on the outskirts of Kraków, in southern Poland. In addition to mirror manufacture, the Company is engaged in edge polishing and bevelling of clear glass.

Kraskzko currently manufactures products using predominantly imported float glass. Mirrored products include decorative mirrors, small-sized mirrors of various designs, stock mirrors, and automotive mirrors. Kraskzko also produces furniture glass, including doors, shelves and various products for interior decoration.

In 1991, the Company generated sales revenue of zł 45,330 million, and zł 4,412 in pre-tax profits. Sales volume for 1991 totalled 371,000 effective square meters. Exports accounted for 22% of total sales. Major export markets include the United Kingdom, France, Holland, Sweden and Germany.

Kraskzko was originally founded as a state-owned enterprise. The Company was transformed to a joint stock company on December 31, 1991, in accordance with the Privatization Act, and assumed all the rights and obligations of the state-owned enterprise. Presently, the State Treasury is the sole owner of the 280,000 existing shares of the Company.

### **Investment Considerations**

- Kraskzko is the dominant manufacturer of mirrors in the domestic market, with an estimated 50% market share. The Company is well-known throughout Poland, and distributes products throughout the domestic market.
- Kraskzko provides access to the emerging Polish market. The Polish construction and housing industries are expected to expand rapidly as the economy moves out of recession.
- The Company meets international quality standards for mirror production. Kraskzko uses imported float glass to manufacture nearly 100% of its mirrored products.
- The Company's work force of 171 employees is thoroughly versed in all aspects of glass handling, working and silvering.



## COMPANY PROFILE

Huta Szkła Oklennego "Kunice" S.A.

May 1992

Price Waterhouse - IPG

Address: HSO Kunice S.A.  
68-205 Żary 6  
Ul. Szklarska 33  
Tel: 35 14  
Fax: 30 63  
Tlx: 0432131

Management: Mr. Janusz Rodkiewicz, Managing Director  
Mr. Zbigniew Kępa, Technical/Production and Marketing Director

Employees: 586

Products: Sheet, Antisol, Automotive Tempering

Production Facilities:

Site A: Fourcault Furnace (clear sheet)  
Site B: Pittsburgh Furnace (Antisol)  
Automotive Tempering Division

1991 Production Output: 11,240 tonnes (clear)  
5,826 tonnes (tint)

Financial Summary:

Figures in zloty millions	1990	1991
Total Sales	108,768	84,361
Pre-Tax Profit (1)	35,119	3,875
Net Profit	20,808	453
Net Working Capital (2)	20,487	23,172
Total Debt	0	2,086
Total Assets	114,997	91,016

(1) Pre-Tax Profit less income tax, state dividend and excess wages tax ("popiwek")

(2) Current Assets - Current Liabilities

### **Business Summary**

HSO Kunice S.A. is a flat glass manufacturer and processor, employing 586 people. The company manufactures both clear and Antisol (bronzed) sheet glass, for the construction and furniture markets. In recent years, Kunice has invested in and developed a glass toughening and bending operation to process glass for the automotive market. It is currently the dominant supplier of automotive side windows for the Cinquecento produced by FSM.

In 1991, Kunice generated sales of zł 84,361 million, and zł 3,875 million in pre-tax profit. The majority of sales are realized by the automotive toughening division, accounting for 54% of sales in 1991. Approximately 17% of sales were exported in 1991. Export products include toughened glass, 2mm picture glass and 4mm horticultural glass.

The automotive toughening division offers good prospects for the company. Toughening is performed on a Glasstech bending furnace, capable of thicknesses down to 3.1mm. The division is well organized, operates to international quality standards, and has normal manning levels by Western standards. Annual production capacity is 800,000 effective square meters. Further expansion into European markets could offer attractive opportunities.

The prospects are low for ongoing clear sheet glass manufacturing at Kunice, due to the use of the outdated Fourcault process technology. The Fourcault furnace is due for repair in 1994, and management does not intend to refurbish the furnace. There is potential for converting the Antisol production facilities to specialized tinted glass, but quality must be substantially improved. The Pittsburgh furnace used for Antisol production is due for repair in 1995.

Kunice is located in southwestern Poland, near the German border. In 1990, the company initiated steps toward privatization. Kunice was subsequently transformed from a state-owned enterprise to a joint stock company on March 11, 1991, in accordance with the Privatization Act, and assumed all the rights and obligations of the state-owned enterprise. Presently, the State Treasury is the sole owner of all of the existing shares of the company.

### **Investment Considerations**

- Kunice's toughening division has a well-managed work flow and European standard manning, yet production capacity is underutilized.
- The company produces good quality toughened glass, and dominates the automotive toughening market for sidewindows in Poland, producing to E43R international quality standards.
- Kunice has a well-trained work force, with strong skills and experience in glass handling and long series fabrication.
- Management is dedicated to transforming the company from a sheet glass manufacturer to a strong glass processor, and to expanding the company's marketing capabilities.

## COMPANY PROFILE

Huta Szkła Okiennego "Szczakowa"

May 1992

Price Waterhouse - IPG

Address: HSO Szczakowa  
32-520 Jaworzno  
ul. Kolejarzy 81  
Tel: /832-/ 774 41 thru 9  
Fax: /832-/ 774 40  
Tlx: 312638

Management: Mr. Edward Stecki, Managing Director  
Mr. Kazimierz Szczepański, Technical Director  
Mr. Bogusław Karch, Commercial Director  
Mr. Andrzej Barancewicz, Investments Director

Employees: 1,500

Products: Sheet, Tempering, Double Glazing, Window Frames, Drinkware

Production Facilities:

Two plants  
2 Pittsburgh furnaces  
1 Furnace for drinkware  
1 Tempering furnace  
1 Furnace for fiber glass  
1 DGU production line  
1 Window production line

1991 Production Output: 85,990 tonnes

Financial Summary:

Figures in zloty millions	1990	1991
Total Sales	261,460	332,263
Pre-Tax Profit (1)	80,999	44,670
Net Profit	49,392	13,885
Net Working Capital (2)	2,233	(462)
Total Debt	49,504	78,187
Total Assets	375,769	394,166

(1) Pre-Tax Profit less income tax, state dividend and excess wages tax ("popiwek")

(2) Current Assets - Current Liabilities

### **Business Summary**

HSO Szczakowa is a flat glass manufacturer and processor located near Katowice, in southern Poland. The company's products include sheet glass, window frames, double glazed units, and beer glasses. Szczakowa is currently in the process of completing a major new production line to produce bent and toughened glass. The company employs 1,500 people.

In 1991, Szczakowa generated sales of zł 332,263 million, and zł 44,670 million in pre-tax profit. Approximately 27% of total sales were exported. Sheet glass accounted for 58% of total sales, while processed glass for the furniture industry and window frames accounted for an additional 22%. However, Szczakowa is suffering from liquidity problems, with debts totalling zł 78,187 million.

Szczakowa is one of two sheet glass manufacturers in Poland using the Pittsburgh process technology. The company operates two Pittsburgh furnaces, serving 12 lines. All lines are equipped with high quality Bystronic automatic take-off machines.

Additionally, Szczakowa's cutting and edge working division is up to world standards and could be very competitive. The cutting division is well-equipped with four lines, three of which are recent Bystronic models with computer optimization. Four lines are used for edge polishing.

Two years ago, the company established a window frame manufacturing facility, equipped with Actual (Austrian) machinery. The division provides a commercially acceptable product, with the manufacturing line active with reportedly strong business.

A new 1200mm wide Glasstech bending and tempering furnace for automotive products is also due to commence production in mid-1992.

### **Investment Considerations**

- Szczakowa has made substantial investments to expand its glass processing capabilities, in addition to being a large Pittsburgh sheet manufacturer.
- The company's window frame manufacturing division is active, and potential exists for greater penetration of the commercial market.
- Szczakowa has recently invested US\$ 6 million in a top quality toughening furnace for the automotive market.
- Szczakowa has a highly skilled, low cost work force, with experience in glass manufacturing and processing.
- New management is committed to improving the liquidity position of the company, and expanding its glass processing capabilities.

## COMPANY PROFILE

Huta Szkła Jarosław S.A.

May 1992

Price Waterhouse - IPG

Address: 37-500 Jarosław  
Ul. Morawska 1  
Tel: (817-85) 4001 to 4011  
Fax: 2980  
Tlx: 633468

Management: Lesław Kulpa, Managing Director  
Anna Kalamarz, Finance Director  
Adam Gajewski, Trade Director  
Wojciech Pawłowski, Technical Director

Employees: 1485

Products: Amber and flint bottles and jars for food and beverage packaging in volumes of 0.2-1.5 liters

Production Facilities:  
One plant site  
Furnace #1, side-port, 220 t/day, amber glass, four 8-sect DG IS machines  
Furnace #2, side-port, 220 t/day, flint glass, four 8-sect DG IS machines  
Furnace #3, side-port, 220 t/day, flint glass, four 8-sect DG IS machines  
Furnace #4, side-port, 260 t/day, amber glass, two 8-sect DG IS machines,  
and one 12-sect DG IS machine  
Automatic inspection and packing equipment

### 1991 Production Output:

180,000 tons  
713.0 million units

### Financial Summary:

Figures in zloty millions <sup>1</sup>	1990	1991
Total Sales	350,614	519,026
Pre-Tax Profit	92,628	87,941
Net Profit	35,602	8,797
Net Working Capital <sup>2</sup>	35,261	(18,059)
Total Debt	25,200	65,084
Total Assets	369,177	454,303

<sup>1</sup> Average exchange rates: 1990, Zł 9570=USD \$1; 1991, Zł 10,731=USD \$1.

<sup>2</sup> Current Assets - Current Liabilities

## **Background**

Jarosl w S.A. is the largest manufacturer in Poland of glass bottles and jars, primarily for the food and beverage industries. The Company is located on one plant site in the southeast area of Poland fifty-two kilometers east of the larger city of Rzesz w, and approximately thirty kilometers from the Ukrainian border. It is the most recently built of the twelve glass container plants in Poland, having begun operations in 1974.

## **Market**

Jarosl w's products are sold directly to domestic customers, and through a variety of intermediaries to export customers. The foreign trade organization, Minex, previously was responsible for all of the Company's export sales, but by 1992 will be responsible for only a minority of exports. In total, there are approximately 1,300 customers for Jarosl w's products.

## **Production**

Jarosl w currently produces both flint and amber glass containers. The volumes of the Company's products range from 0.2 liters to 1.5 liters. The main products include: bottles for beer, wine, vodka, milk, soft drinks, juices and mineral water; and wide-mouth jars of TO-type for various foodstuffs such as mustard and mayonnaise. Additionally, the product range includes bottles for chemicals and cosmetics, although on a much smaller scale.

## **Financial Performance**

In 1991, the Company generated Zl 519,026 million in sales revenues, and Zl 87,941 million in pre-tax profits, or approximately \$48.4 million and \$8.2 million, respectively. There were 712.8 million units shipped in 1991, or 180,123 metric tons of product. Of the total sales, 33.6% were sold to western export markets. There were no exports to countries formerly comprising the CMEA trading block.

## **Privatization Status**

Jarosl w was transformed to a joint stock company in September, 1991. The Company's shares are 100%-owned by the State Treasury and are represented by the Ministry of Privatization.

## **Investment Considerations**

The Company is a large, modern facility which is comparable to western standards of production scale.

Jarosl w produces high quality glass containers for most of the major glass customers throughout Poland.

The low cost of labor, fuel and materials in Poland gives the Company a competitive advantage over western competitors in Jarosl w's export markets.

## COMPANY PROFILE

### Huta Szkła Orzesze

May 1992

Price Waterhouse - IPG

Address: 43-180 Orzesze  
Ul. Gliwicka 59  
Tel: (832) 1215280  
Tlx: 0315349

Management: Jan Basiurk, Managing Director  
Edward Bohdan, Trade & Transformation Director  
Ireneusz Kozdras, Finance Director  
Włodzimierz Biernat, Technical Director

Employees: 477

Products: Amber bottles for beer, food packaging, and medical products

Production Facilities:

One plant site  
Two Sorg furnaces, rated capacity of 110 tons/day each  
Five 6-section IS machines, One 8-section IS machine

1991 Production Output:

39,120 tons  
213.1 million units

Financial Summary:

Figures in zloty millions <sup>1</sup>	1990	1991
Total Sales	57,117	136,432
Pre-Tax Profit	14,075	27,997
Net Profit	4,436	18,590
Net Working Capital <sup>2</sup>	2,531	26,305
Total Debt	8,792	11,394
Total Assets	88,184	95,238

<sup>1</sup> Average exchange rates: 1990, Zł 9570=USD \$1; 1991, Zł 10,731=USD \$1.

<sup>2</sup> Current Assets - Current Liabilities

## **Background**

Orzesze was founded in 1846 and is located approximately 30 kilometers southwest of Katowice. The Company produces amber bottles in volumes of 60-500 ml. Orzesze's sales divided by end-use market for 1991 was as follows: 30-40% beer bottles, 20% food packaging (for ketchup, mustard and baby food), and 40-50% medical packaging.

## **Market**

Orzesze's largest domestic customers include the national medical products producers; the top five customers account for less than 25% of production. Approximately 20% of the Company's sales are exported, comprised of 45% beer bottles to German customers and 55% pharmaceutical packaging to other East European countries. Domestic sales are direct; export sales are managed through an intermediary. In the pharmaceutical markets, Orzesze has a significant market share, and competes primarily with only one other producer. In the beer bottle markets, there are four other domestic competitors, and for the baby food market there is primarily one other major competitor.

## **Production**

The Company implemented a major modernization program in 1971 in which virtually everything in the plant was rebuilt. There are two 110 ton/day furnaces designed by Sorg that are among the best in Poland. They were last repaired in 1989 and 1990, and management expects that they will have six year campaigns each. There are three Emhart 6-section IS machines, two BDF 6-section IS machines and one BDF 8-section IS machine. All ware is manually inspected and bulk palletized. The Company intends to build a sterile-packaging facility for the pharmaceutical ware, but has not yet developed specific plans for its implementation.

## **Financial Performance**

The Company's total sales in 1991 were Zl 136,432, or 32.6% higher than 1990 on a constant zloty basis, generating pre-tax profits of 20.5% of sales. In general, net profitability rose, and the Company's financial management improved, with liquidity currently stable.

## **Privatization Status**

The Company is currently a state-owned enterprise whose founding body is the Ministry of Industry.

## **Investment Considerations**

Orzesze has modern furnaces and basic forming equipment that operates at a medium scale. The addition of modern inspection, packing equipment and sterile packing conditions could significantly improve the Company's quality and competitiveness.

The low costs of labor and raw materials relative to western markets creates the opportunity for the Company to significantly improve its level of export sales.

The Company is financially stable with a strong balance sheet.



## COMPANY PROFILE

### Huta Szkła Pollena-Czechy

May 1992

Price Waterhouse - IPG

Address: 08-406 Trąbki  
Osada Czechy  
Tel: (821) 2222  
Fax: 2223  
Tlx: 84459

Management: Marian Antolski, Managing Director  
Tadeusz Basista, Technical Director  
Józef Smak, Production Director  
Jerzy Pytlarczyk, Trade Director

Employees: 535

Products: Flint bottles for cosmetics, personal care products, specialty flasks and liquors

Production Facilities:

One plant site  
One furnace, end port, 50 ton/day, flint glass  
Three 6-section double gob IS machines  
Manual inspection and packing

1991 Production Output:

9,181 tons  
70.4 million units

Financial Summary:

Figures in zloty millions <sup>1</sup>	1990	1991
Total Sales	45,385	48,114
Pre-Tax Profit	10,425	(7,777)
Net Profit	2,709	(12,465)
Net Working Capital <sup>2</sup>	9,279	N/A
Total Debt	4,033	N/A
Total Assets	98,263	N/A

<sup>1</sup> Average exchange rates: 1990, Zl 9570=USD \$1; 1991, Zl 10,731=USD \$1.

<sup>2</sup> Current Assets - Current Liabilities

## **Background**

Pollena-Czechy is located 40 kilometers south-east of Warsaw in the town of Trąbki. The Company was originally founded in 1822, but underwent a major reconstruction in 1970 with technology and assistance from St. Gobain, France.

## **Market**

The company produces small flint glass products for cosmetic, spirits and toiletry markets. Export sales have increased from only 1% of total sales in 1990 to 35% in 1991, mainly to the German market. Half of export sales are through a Polish export intermediary, and the rest are direct. The company has a cost advantage over West European producers due to the low costs of labor and materials in Poland.

## **Production**

Facilities consist of a batch plant feeding a 50 ton/day furnace which is linked to three 6-section forming lines of moderate efficiency. Inspection is conducted on a manual basis, with no automated stations.

## **Financial Performance**

The Company was adversely affected by the collapse of the Polish cosmetics and personal care markets in 1990. This resulted in a drop in 1991 revenue of 73% on a constant 1991 zloty annualized basis, over 1989 results. The Company made an operating loss of 1.2% for the first nine months of 1991. The Company has also experienced a deterioration in receivables and inventory levels. All debt is short term and stood at Zł 4.1 billion at the end of 1990.

## **Privatization Status**

The Company is a state owned enterprise whose founding body is the Siedlce vovoidship. The Company has been admitted to the Ministry of Privatization's Fast Track auction program.

## **Investment Considerations**

While holding a small niche in the current market, Czechy requires investor input both financially and technically. Scope may exist to exploit the Company's perceived cost advantages in exported small containers.

## COMPANY PROFILE

### Huta Szkła Ujście

May 1992

Price Waterhouse - IPG

Address: 64-850 Ujście  
Ul. Fabryki Szkła 2  
Tel: (867) 23438 or 23439  
Tlx: 047529

Management: Zenon Koczan, Managing Director  
Jan Skrobek, Production Director  
Józef Zielonka, Technical Director

Employees: 760

Products: Amber and green bottles for beer, wine, soda, and cooking oils

Production Facilities:

One plant site  
Furnace #1, 90 ton/day amber glass, two Roirant S10 machines  
Furnace #2, 140 ton/day green glass, four Roirant R7 machines  
Furnace #3, 130 ton/day green glass, three 6-section IS machines

1991 Production Output:

76,000 tons  
202.0 million units

Financial Summary:

Figures in zloty millions <sup>1</sup>	1990	1991
Total Sales	128,135	208,493
Pre-Tax Profit	28,593	34,370
Net Profit	14,355	13,768
Net Working Capital <sup>2</sup>	15,565	23,242
Total Debt	8,000	7,000
Total Assets	108,456	135,076

<sup>1</sup> Average exchange rates: 1990, Zł 9570 = USD \$1; 1991, Zł 10,731 = USD \$1.

<sup>2</sup> Current Assets - Current Liabilities

## **Background**

The Company was founded in 1809, primarily as a sand company, but was soon thereafter converted to glass production. The factory was rebuilt in 1929 and in 1961, and today operates three furnaces in two locations, with nine automatic lines. The Company employs 760 people.

## **Market**

Ujście produces amber and green bottles in volumes of 0.2-1.0 liters, with the majority of products to be used for beer, wine and soda. Other end-use markets include cooking oils and additives, baby food, ketchup, and sherry. The product assortment has not changed significantly in the last few years. Ujście is currently the only domestic producer of green bottles in Poland. Ujście is also the main producer of wine bottles in Poland. Of the total sales, 35% and 45% were sold in the export markets in 1990 and 1991, respectively. The Company's export sales are highly concentrated among the top three customers -- in decreasing order, from Belgium, Germany and France -- who represent almost 75% of all exports. In contrast, the top five domestic customers represented only 20% of all domestic sales. Most of the significant export and domestic customer relationships have existed for 5-35 years. All sales to the domestic markets are direct. The Company has a salesforce of four people focusing on domestic sales, and generates export sales through a 51%-owned subsidiary, Usawa Glass, which has a staff of three focusing on export markets.

## **Production**

The Company's production facilities include three furnaces and forming lines divided between two main buildings on one plant site. Ujście owns its sand pit which produces approximately 200 tons daily, with an estimated thirty year reserve. The forming equipment ranges from three basic 6-section IS machines for the smaller ware to the Roirant S10s and R7s making the larger wine bottles. Furnace #1 is scheduled for repair in June 1992; the other furnaces are scheduled for repair in 1995 and 1996. The Company is currently able to produce approximately 210 million units per year, and has averaged 205 million units annually over the past four years.

## **Financial Performance**

Between 1990 and 1991, the Company's revenues in current zlotys increased from Zł 128,135 million to Zł 208,493 million, although pre-tax profitability dropped from 22% to 17% during the same period. Unit sales remained stable, so the decrease was largely due to difficult trading conditions existing throughout the year.

## **Privatization Status**

Ujście is a state owned enterprise whose founding body is the Ministry of Industry.

## **Investment Considerations**

The Company has the highest component of export sales to western markets of any Polish glass container manufacturer. Given some level of investment to increase capacity and technological improvement to boost present forming speeds, this can be an opportunity to compete in Polish and in western markets on a price basis for large glass container ware.

## COMPANY PROFILE

### Huta Szkła Gospodarczego "Hortensja"

May 1992

Price Waterhouse - IPG

Address: ul. 1 Maja 21  
97-300 Piotrków Trybunalski  
Poland  
Tel: (48-841) 54-65  
Fax: (48-841) 54-65  
Tlx: 886401

Management: Mr. Stanisław Dura, Managing Director  
Mr. Wojciech Rozpedek, Production Director  
Mr. Jerzy Kulbat, Technical Director

Employees: 1,065

Products: Soda lime clear and colored giftware with  
unique combinations of colors

Facilities: One facility -  
  
Three natural gas, end-fired, recuperative furnaces;  
  
Two pot furnaces (for colored glass);  
  
Hand finishing and hand decorating processes

Production Output: 1991 total - 1,261 tonnes

#### Financial Summary:

Figures in millions of zloty	1990	1991
Total Sales	46,831	53,057
Pre-Tax Profit	9,272	(1,625)
Net Profit (1)	3,062	(3,712)
Net Working Capital (2)	2,538	(1,197)
Total Debt	2,000	3,900
Total Assets	61,366	63,297

(1) Pre-tax profit, less income tax, state dividends and excess wage tax ("popiwiek").

(2) Current Assets - Current Liabilities.

May 1992

Price Waterhouse - IPG

### Business Summary

Hortensja is a soda lime giftware manufacturer located in south central Poland. Sales in 1991 totalled 53 billion Zl (US\$3.9 million), of which 44% were exported. The company specializes in colored glassware - including purple, dark lilac, violet, green and amethyst colors - and is the only significant colored glassware producer in Poland.

The company's products include blown, pressed, and painted products. Primary exports markets are the U.S. (Crystal Clear, Euromarket, and Toscana) and the UK. However, the company is not realizing its full potential on the export markets due to product quality and design.

The company has a good range of facilities that are well laid out and permit flexibility in different color combinations. Currently the facilities are operating at about 50% capacity and there is room for expansion.

Hortensja's management has had difficulties in dealing with the changes caused by the free market economy and will need assistance and guidance. As a result of this, Hortensja's financial performance in 1991 was weak in comparison to other Polish glassware producers.

Profitability suffered as a result of the decline in sales - volume declined by an estimated 35% - combined with the company's relatively high cost structure (principally in raw materials and overhead costs). The company is also having some liquidity problems arising from the need to finance large inventories.

### Investment Considerations

- Hortensja has a low cost, skilled labor force with an average wage of 1.9 million Zl (US\$ 140) per month in 1991.
- The company is the only major colored glass producer in Poland and has some unique colored glass skills spanning a wide range of colors.
- The facilities are in good condition and are able to handle expanded production.
- Hortensja has the potential to significantly improve its export market position through an improvement in quality and design. This, combined with strong leadership, should also result in higher profitability.

## COMPANY PROFILE

### Huta Szkła Kryształowego "Julia"

May 1992

Price Waterhouse - IPG

Address: ul. Szosa Czeska 1  
58-580 Szklarska Poręba  
Poland  
Tel: (48-875) 17-25-12  
Fax: (48-875) 17-26-17  
Tlx: 075454

Management: Ms. Tolisława Szatkowska-Olejek, Commissar  
Mr. Andrzej Idziak, Economics Director  
Mr. Wojciech Superson, Production Director  
Mr. Józef Jurczak, Technical Director

Employees: 603

Products: Handmade lead crystal giftware

Facilities: Three facilities -

Piechowice: one four-tonne/day coal gas, end-fired, regenerative furnace and centrifuge; 150 hand cutting lathes, Achthal acid polishing and six engraving lathes;

Szklarska Poręba: one ten tonne/day electric furnace, Achthal acid polishing;

Jelenia Góra: 50 hand cutting lathes

Production: 1991 total export - 297 tonnes  
1991 total domestic - 446 tonnes

#### Financial Summary:

Figures in millions of zloty	1990	1991
Total Sales	31,842	39,655
Pre-Tax Profit	2,963	(5,220)
Net Profit (1)	128	(8,523)
Net Working Capital (2)	3,981	(2,677)
Total Debt	2,446	1,801
Total Assets	37,678	34,012

(1) Pre-tax profit less income tax, state dividends and excess wage tax ("popiwek").

(2) Current Assets - Current Liabilities.

May 1992

Price Waterhouse-IPG

### Business Summary

Julia, a relatively small company, was established in the 1842 and has developed a reputation for satisfying smaller orders with good quality production. All of the company's production is handmade 24% lead crystal giftware. This includes blown, pressed and centrifuge products which are generally highly decorated. The company is located near the Czechoslovakian border and has a total of 603 employees, of which 253 are cutters and 53 are blowers.

Julia's sales in 1991 totalled 40 billion Zł (US\$ 3.0 million). Approximately 53% of sales (in terms of value) are exported, primarily to the UK market which takes 50% of total exports.

The company has three plants, two of which are currently operating. Forming is currently performed at Szklarska Poręba which has the largest furnace, while most of the cutting is at Piechowice which has larger space. The company plans to consolidate its operations in 1992 at Piechowice in order to reduce some of the inefficiencies.

The company's financial performance in 1991 was weak, partially due to the inefficient production arrangement and partially due to the high local cost inflation which was not matched by export price increases. The company also incurred significant costs arising from its limited liquidity. Certain of these issues are being addressed in an improvement program that is being developed under the auspices of the founding governmental body.

### Investment Considerations

- Julia provides a low-cost skilled labor force. The average wage rate in 1991 was 1.7 million Zł (US\$129) per month, including insurance and taxes.
- Julia produces only handmade crystal and has the capability to satisfy small specialized orders. The company has also developed a unique amber 'overlay' process which is simpler than the typical hot glass overlay process.
- The company's products are of good quality and are attractive to markets desiring highly decorated crystal.
- The company has significant underutilized facilities, with the capacity to produce approximately twice the current production. Some investment, however, will be required to refurbish the furnaces and install environmental equipment.



## COMPANY PROFILE

### Huta Szkła Gospodarczego "Tarnów"

May 1992

Price Waterhouse - IPG

Address: Al. Piaskowa 120  
33-100 Tarnów  
Poland  
Tel: (48-14) 21-82-51  
Fax: (48-14) 21-81-99  
Tlx: 066208

Management: Mr. Stanisław Klempka, Managing Director  
Mr. Zygmunt Legierski, Technical Director  
Mr. Kazimierz Białota, Sales Director

Employees: 917

Products: Handmade and automatic soda lime glassware

Facilities: One plant with two facilities -

First facility: two eight-tonne/day gas end-fired regenerative furnaces;  
one Lindner gathering machine and rotary blowing machine; automatic  
screen printing; hand cutting lathes

Second facility: one 32-tonne/day gas cross-fired regenerative furnace  
with C. Itoh rotary blowing machine

Production: 1991 export total - 851 tonnes  
1991 domestic total - 4,375 tonnes

#### Financial Summary:

Figures in zloty millions	1990	1991
Total Sales	62,564	84,169
Pre-Tax Profit	18,653	11,985
Net Profit (1)	9,393	4,849
Net Working Capital (2)	8,155	17,303
Total Debt	0	10,416
Total Assets	79,587	91,335

(1) Pre-tax profit less income tax, state dividend and excess wage tax ("popiwek").

(2) Current Assets - Current Liabilities.

Business Summary

Tarnów, which is located near Kraków, was established in 1969. The company produces handmade and automatic glass tableware and is the second largest glassware producer in Poland (behind Krosno, a public company). Sales in 1991 totalled 84 billion Zł (US\$6.5 million) of which 45% was exported. Tarnów's products are regarded as having the highest quality in the country, both in terms of glass quality and design.

Tarnów's handmade products comprise 58% of sales and are targeted to the export markets where approximately 75% are sold. The company's automatic products (tea tumblers) comprise 42% of sales and are produced primarily for the domestic market.

The company has one facility that is well suited to its present needs. Handmade production occurs twenty four hours a day, five days a week, as is typical in Poland. The company acquired a new Lindner semi-automatic machine in 1991 which is in the process of meeting performance criteria. Tarnów has 917 employees of which approximately 500 are considered direct labor.

Investment Considerations

- Tarnów has a low cost skill base. The average wage is 1.56 million Zł per month (US\$115), which is one of the lowest in the country. In addition, there is a local surplus of skilled glass workers due to the bankruptcy of a neighboring glassware manufacturer, which has restrained wage inflation.
- Tarnów's handmade products have very high quality, with 80% of handmade products meeting export quality standards (most of which are in fact exported).
- Tarnów has developed its own brand name in the export markets, where 70% of sales carry its name.
- The company's facilities for glass production are well suited to this type of activity and reflect good industrial engineering.
- Tarnów's financial performance has been impressive. Despite the difficult economic conditions in 1991, the company produced a cash operating margin of approximately 18%.
- Tarnów's management team is solid both from a managerial and technical perspective. The Managing Director, Mr. Klempka, has been at Tarnów since 1970 and has a good grasp of the issues associated with the change to a free market economy.

## COMPANY PROFILE

### Huta Szkła Kryształowego "Violetta"

May 1992

Price Waterhouse - IPG

Address: ul. Hutnicza 12  
57-550 Stronie Śląskie  
Poland  
Tel: (48-72) 151-498  
Fax: (48-72) 151-498  
Tlx: 0742303

Management: Mr. Kazimierz Drożdż, Managing Director  
Mr. Jerzy Witek, Technical Director

Employees: 1,600

Products: Handmade lead crystal giftware, both blown and pressed

Facilities: One facility -

Three 8-10 tonne/day coal gas-fired regenerative furnaces with centrifuge;

Achthal acid polishing and three engraving lathes

Production: 1991 export total - 1,663 tonnes  
1991 domestic total - 750 tonnes

#### Financial Summary:

Figures in zloty millions	1990	1991
Total Sales	96,036	116,865
Pre-Tax Profit	11,872	(21,416)
Net Profit (1)	4,150	(24,071)
Net Working Capital (2)	1,661	(816)
Total Debt	8,452	22,538
Total Assets	150,856	149,788

(1) Pre-tax profit less income tax, state dividend and excess wage tax ("popiwiek").

(2) Current Assets - Current Liabilities.

### Business Summary

Violetta was established in 1864 and today is Poland's largest crystal manufacturer with sales of 117 billion Zl (US\$10.4 million). All of its production is handmade 24% lead crystal giftware, consisting of mouth blown (70%) and pressed (30%) products. In addition, the company produces some blue crystal.

With high quality products, Violetta is Poland's largest crystal exporter, responsible for approximately 24% of total exports. The company is located in the south of Poland, near the Czechoslovakian border. Of its 1,600 employees, 570 are cutters and 208 are blowers.

Despite these advantages, the company's financial performance in 1991 was weak. This is partially due to high employment levels. The company shut down its automatic production line in 1990, but did not reduce employment. In addition, the company has been affected by high local cost inflation which has not been matched by export price increases.

### Investment Considerations

- Violetta provides a large, low-cost skilled labor force. The average wage rate in 1991 was 1.9 million Zl (US\$140) per month, including insurance and taxes. Furthermore, wage inflation since 1989 has been lower than most of the company's other production costs.
- Violetta's production is focused on handmade crystal and may be considered the highest quality in Poland. As a result, its products have a very strong presence in the export markets. Sixty-four percent of sales are exported, principally to North America (75% of total exports).
- The company has started to establish its own brand name in markets outside of North America using distinctive, attractive packaging. Violetta also started to expand into the Far East markets in 1991.
- Despite these successes, Violetta's export market potential has not been fully realized. In particular, given the quality of its products, the company has the capability to target higher quality customers, achieving higher pricing.
- Violetta's facilities are well suited to its current production profile and are efficiently organized. Production quality is high at all steps (blowing, cutting and polishing).

## COMPANY PROFILE

### Huta Szkła Gospodarczego "Zawiercie"

May 1992

Price Waterhouse - IPG

Address: Str. Towarowa 18  
42-400 Zawiercie  
Poland  
Tel: (48) Zawiercie operator, 22-844  
Fax: (48) Zawiercie operator, 22-761  
Tlx: 0315519

Management: Mr. Bronislaw Widera, Managing Director  
Mr. Tadeusz Zawadzki, Marketing Director

Employees: 810

Products: Mouth and automatically blown hand cut 24% lead crystal (principally stemware)

Facilities: One facility -  
Three ten-tonne/day mixed gas fired regenerative furnaces;  
One Forma process blowing machine;  
Hand cutting lathes and Achthal acid polishing

Production: 1991 export total - 465 tonnes  
1991 domestic total - 620 tonnes

#### Financial Summary:

Figures in zloty millions	1990	1991
Total Sales	52,886	72,179
Pre-Tax Profit	10,755	3,682
Net Profit (1)	4,796	(471)
Net Working Capital (2)	3,507	2,245
Total Debt	18,657	24,429
Total Assets	96,985	101,113

(1) Pre-tax profit less income tax, state dividends and excess wage tax ("popiwiek").

(2) Current Assets - Current Liabilities.

### Business Summary

Zawiercie is located 40 km from Kraków and produces 24% lead crystal. Sales in 1991 totalled 72 billion Zl (US\$ 5.3 million), of which 58% were exported. The company's product range includes automatic-blown (SORG) stemware (60% of sales), mouth-blown crystal (22%) and pressed products (18%). Zawiercie has developed a niche in low cost decorated crystal with its SORG crystal products that currently have high export demand. Primary export markets are the UK and North America.

Zawiercie's operating financial performance in 1991 was strong, resulting in a cash operating margin in excess of 20%, despite difficult industry conditions. Its net income, however, was affected adversely by costs associated with tight liquidity, which arose from an increase in accounts receivable and high capital expenditures.

The company's facilities are well-suited to present needs. Of the 810 employees, approximately 270 are cutters and 36 are blowers.

### Investment Considerations

- Zawiercie has a low-cost, skilled labor base with an average wage in 1991 of 1.58 million Zl (US\$ 117) per month, one of the lowest within the industry in Poland.
- Zawiercie has a strong niche in low cost hand-cut crystal which was principally responsible for the 26% increase in export tonnage in 1991. Competition in this niche is limited as only a few other SORG producers perform hand-cutting.
- The new Managing Director has made considerable improvements in a short period of time, reducing labor by approximately 7%, increasing export sales and improving product quality. He is one of the most capable leaders in the consumer glassware industry.
- The company's operating margin remains at its high historic levels.