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A look at the Portuguese glass industry

The glass sector in Portugal can typically be divided into the sub-sectors of flat glass, container glass and crystal. Despite a worldwide economic recession during the early nineties and recessionary trends in the crystal market during the last decade, total glass production in Portugal has expanded significantly in recent years. Here, overall trends in the Portuguese glass industry, as well as tendencies in the individual sub-sectors, will be discussed.

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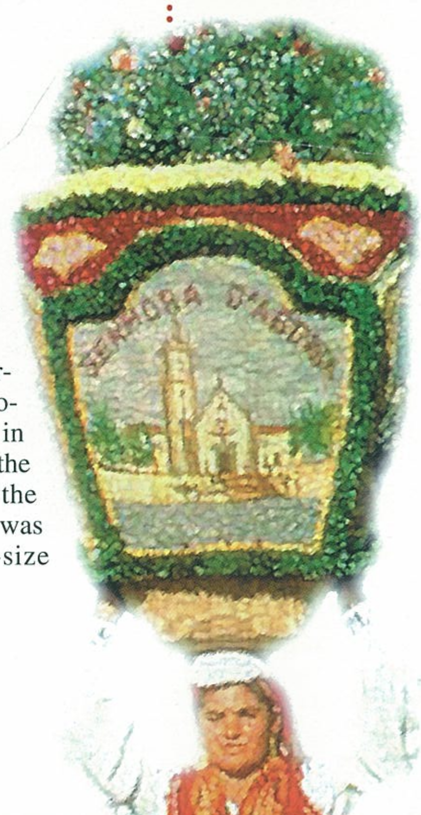
OVERVIEW OF TRENDS

After a period of worldwide recession around 1992-1993 which affected both production and consumption, the glass sector has been recapturing a privileged role as a packaging material in the European and worldwide markets due to its unique recycling properties. Presently, efforts are mainly being directed at improving recycling, manufacturing procedures and energy efficiency. In the last decade, total glass production in Portugal has expanded by approximately 83 per cent.

Going slightly further back, during the decade 1985-1994, the evolution of the various glass sectors in Portugal was distinct from that in the rest of Europe and elsewhere, as the Portuguese container glass sector was composed of a set of medium-size



companies which underwent a marked effort to train their technical staff and renew their equipment. On the other hand, the household glass sector, traditionally incorporating crystal, is still dominated by small and medium-sized enterprises which tend to be family owned.

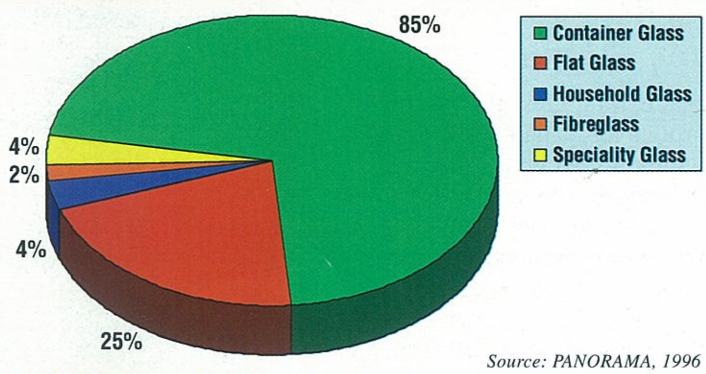
The flat and container glass industries are the most advanced of the glass sectors in Portugal. In terms of production technology, quality and yield, they are fairly competitive with other foremost foreign glass manufacturers. During the decade 1985-1994, the crystal glass sector, which is currently undergoing a process of restructuring, faced tremendous competition at the international level as well as a marked recession.

The main markets for Portuguese exports in the sectors of container glass and flat glass are the member states of the European Union, particularly Spain. As regards crystal, export activity is more worldwide. Specific niche market products go to the European Union, the USA and, on a smaller scale, to the rest of the world. The manufacturing of fibreglass is not considered to be significant in Portugal. In the speciality glass segment, only a small number of companies work in the transformation area. In 1996, the flat glass, container glass and crystal glass sectors showed a production capacity breakdown which very closely resembled the corresponding European structure (see Figures 1 and 2).

Although there is a tradition in Portugal that goes back hundreds of years in the manufacture of glass for laboratory, pharmacy and medicinal purposes, the current fierce competition between German, American and Italian companies limits the growth of national plants aimed at manufacturing such articles. Presently, there is only one factory in Portugal operating with these types of products.

FIG. 1

GLASS PRODUCTION CAPACITY BREAKDOWN IN THE EUROPEAN UNION (1996)



Source: PANORAMA, 1996

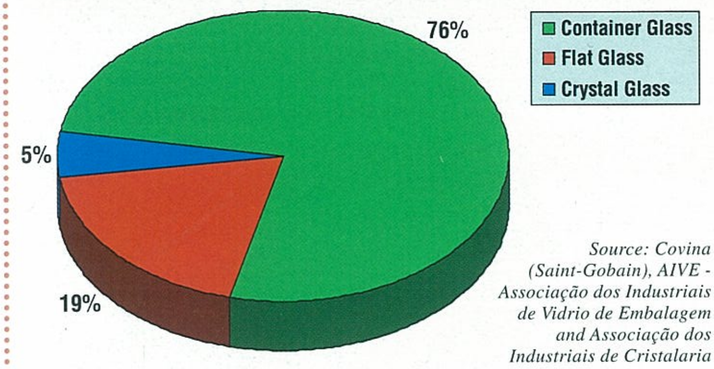
FLAT GLASS

Flat glass is mainly produced near Lisbon by one single company, *Covina,* which belongs to the largest world glass manufacturing group; namely *Saint-Gobain* (see Table 1).

In tonnage, the manufacturing of flat glass represents 19 per cent of total glass production in Portugal and in financial turnover it represents 10 per cent of the same figure. Covina's activity is diversified in a wide range of products for the building and automotive industries and other transformation products. During the first six months of 1996, glass production was suspended at Covina due to blast-furnace reparation and modification. An investment of 33 million Euros was made, leading to

FIG. 2

GLASS PRODUCTION CAPACITY BREAKDOWN IN PORTUGAL (1996)



Source: Covina (Saint-Gobain), AIVE - Associação dos Industriais de Vidrio de Embalagem and Associação dos Industriais de Cristalaria

a 50 per cent increase in production capacity. The untransformed flat glass is mainly used in the construction and automobile industries. Contrary to what was observed in the rest of Europe, Portugal registered an increasing demand for flat glass in 1995 and 1996. A significant volume was spent in large architectural structures like the "Centro Cultural de Belèm", the "Centro Comercial Colombo" and EXPO '98 (in Lisbon), as well as a set of other high quality buildings in the cities of Lisbon and Porto.

However, a recent increase in established production capacities and the construction of new float plants in Europe, together with a recession in the European markets of construction and automobiles, led to a production surplus and a price decrease, with some negative consequences for Portuguese flat glass production.

CONTAINER GLASS

Container glass manufacturing represents 76 per cent, in tonnage, of the total glass production in Portugal and 70 per cent of the same figure, in terms of turnover. After a period of recession at the beginning of the 1990s, container glass production has grown in tonnage at an average rate of 7.5 per cent per year. At present, Portugal occupies eighth position in the ranking of countries which produce glass containers in the European Union, with 4 per cent of total production. Since container glass is not a highly diverse product, domestic competition in this segment is very strong. Energy consumption represents one of the main costs of this industry, absorbing almost one quarter of total production costs. It is likely that the introduction of natural gas, already installed in Portugal, may reverse this factor.

Geographically, Portugal is in a disadvantaged situation in Europe, due to the contri-

TABLE 1

COVINA AND THE COVINA GROUP

	COVINA	COVINA GROUP
Type of company	*Glass producer*	*Glass transformer*
Locality	*Lisbon*	*Lisbon, Porto, Faro*
No. of plants	*1*	*6*
Capital structure	*Saint-Gobain 20% Cristaleria-Española 80%*	*Covina Group*
Range of products production processes	*Flat glass/Float*	*Transformed flat glass processes*
Furnaces (tonnage)	*1 furnace (500 ton/day)*	
Energy source	*Fuel/air*	
Industrial cullet urban cullet	*Own industrial cullet (5% batch)*	
Raw materials (national/imported)	*National*	
No. of employees (engineers, technicians, workers)	*700*	
Certification	*ISO 9000 NP EN 45001*	*IPQ**
Total production (1996)	*33 million Euros/year*	
Markets	*60% (national market) 40% (export)*	

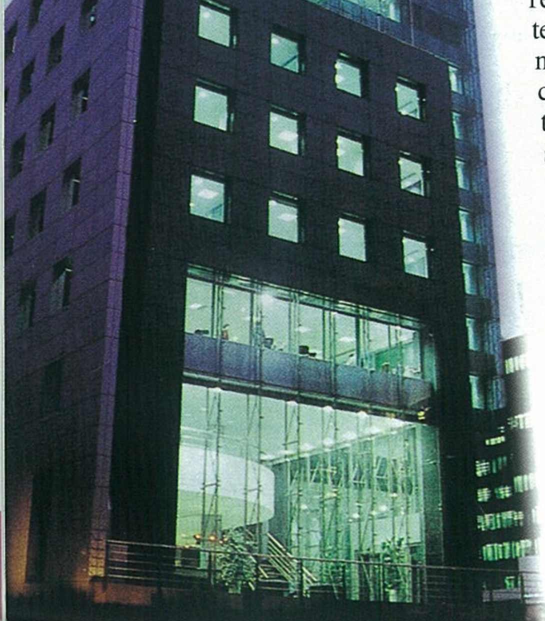
*Portuguese Institute for Quality

"Expo '98", Lisbon, created with glass manufactured by Cricursa

bution of high transportation costs to the final product price; this limits export of container glass to markets at a maximum distance of approximately 2,000 km. Currently national glass producers are aiming (on the technological side) to produce increasingly light and mechanically resistant containers and also to improve product quality. Most of the container glass plants are already certified by the ISO 9000 standard.

CRYSTAL

In tonnage, the manufacture of crystal represents 5 per cent of total glass production in Portugal and, in turnover, 20 per cent of the same figure. Portugal suffered from the recession in 1994 and 1995 and has followed the European market fluctuations in crystal. This market recovered more or less slowly, depending on the type of manufactured products, with the producers of lead crystal glass being the most affected. The crystal glass sector is being restructured in Portugal. By the end of 1999, it is expected that the companies involved in this restructuring programme will have sufficient technology in order to be able to compete strongly with their European counterparts.



Glass supplied by Pilkington for Banif Bank, Lisbon

CONCLUSIONS

The glass sector in Portugal is relatively small in European terms (4 per cent of total EU tonnage), but it is quite significant in national terms, even though it is not a labour intensive industry.

In worldwide terms, technological levels are adequate in the flat and container glass sectors, but less advanced in the crystal glass sector.

Fibreglass and speciality glass sectors are practically nonexistent. There is an important tradition in the manufacture and use of glass products in Portugal, including artistic applications. Considering that Portugal is a member of the European Union (and of the single European currency) and taking into account the continued efforts of modernization of the national glass industry and the crystal glass sector in particular, a sustained increase in the importance of this sector of Portuguese industry is expected.

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