

4 Overview of the South African plastics industry, and specifically the plastics packaging industry

South Africa's chemical industry is of substantial economic importance to the South African economy contributing 5.3% to GDP in 1996. Therein, South Africa has a well-developed plastics industry that is made up of polymer manufacturers, converters and recyclers. Since South Africa has no proven oil reserves the plastics industry relies on the synthetic fuel industry for feedstock. Ethylene is produced as a by-product from the synthetic fuel production process. The total South African ethylene capacity is at its limit at 450 000 tonnes per annum.

Local polymer production (including HDPE, LDPE and LLDPE) is currently constrained by the availability of ethylene.

Currently domestic capacity for HDPE, LDPE and LLDPE is 165 000t, 95 000t and 90 000t respectively. Approximately 600 local companies convert polyethylene into a range of products including vest type carrier bags. Consumption of HDPE and LLDPE for vest type carrier bags is estimated at 40 000t and 4 000t respectively. Any shift in demand from HDPE to LLDPE or LDPE cannot be supplied using domestic capacity and therefore will have to be imported.

In 1994 the plastics manufacturing industry consumed 740 000 tonnes of virgin polymer of which 48% was used by the packaging sector⁷, as illustrated in the table below:

Sector	Total consumption of virgin polymer	Percentage
Rigid Packaging	214 600	29
Flexible Packaging	140 600	19
Building and Construction	66 600	13
Engineering/ mining	37 000	5
Electrical / electronics	37 000	5
Other	238 800	29

There are approximately 200 converters producing carrier bags of various types, approximately 42 of which producing vest type carrier bags. Technology used by converters is generally imported (there are a limited number of South African manufacturers of VCB equipment) and plant capacity is tailored to meet the needs of the local markets, very few converters compete in international markets. In 2000 it was estimated that the average age of conversion capacity in South Africa is 15 years old. Large manufacturers of vest type carrier bags, however, use current technology in production processes.

⁷ Economic analysis of the draft plastic carrier bag regulations, DEAT