

*Association of the Greek Manufacturers of
Packaging and Materials (AGMPM)*

www.pac.gr

*The Greek Packaging Industry
(2011)*

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The use of information and data in this report is permitted provided that the proper reference is quoted: *Alexis Stassinopoulos, The Greek Packaging Industry During 2011 (AGMPM Edition, 2012)*. Correspondence regarding the contents of this study should be addressed directly to the author. stas@otenet.gr

INTRODUCTION

The study provides quantitative data for the Greek packaging material manufacturing industry for the year 2011. It is based on the annual reports of the manufacturing industries and the data collected and compiled by AGMPM and the author.

This English version is a summary of the full report in Greek. It contains mostly the tables with financial data for the whole packaging manufacturing sector, the packaging categories, and the individual manufacturing companies in each category. The full Greek version can be downloaded from AGMPM website: www.pac.gr

Methodology

The study reports data related only to manufacturing facilities producing packaging materials (and precursors to packaging materials) in Greece. The manufacturing activity of multinational Greek companies outside Greece is not included.

The data are grouped in material categories and sub-categories as follows:

Plastic

- Flexible packaging materials: Mono-materials, mainly from PE and PP(films, bags, mega bags etc)
- Rigid packaging materials (Products made by injection molding, blow molding, thermoforming etc.)
- Converted film materials (Printed multilayer film, labels, coated films etc)

Paper and Board

- Corrugated board and boxes
- Products from solid board (folding cartons etc) and paper (labels, paper packaging products, bags etc)

Metal

- Aluminum Flexible and rigid packaging and precursors (film, sheet, preforms, cans, caps, converted film and products etc)
- Tinplate and steel packaging (Cans, caps, drums etc)

Glass

- Bottles, jars etc

Wood

- Mainly pallets

Basic precursors in the packaging materials production chain.

- Paper/ Board packaging
- Metal packaging
- Plastic packaging

Overview of the Greek packaging industry

In 2011, the total turnover of the 150 Greek packaging industries (SA and Ltd), reporting results, was 1805 million €. It is estimated that another 80 million € corresponds to the turnover of 200 small packaging manufacturers and the in-house packaging production of packaging end-users.

TABLE1. The overall picture of the Greek packaging industry in 2011

| Materials category | Number of companies | | Turnover in million € | | Net results million € | | Exports million € | |
|--------------------|---------------------|------------|-----------------------|-------------|-----------------------|-------------|-------------------|------------|
| | 2011 | 2010 | 2011 | 2010 | 2011 | 2010 | 2011 | 2010 |
| Plastic | 78 | 98 | 748 | 660 | 13,3 | 5,3 | 250 | 184 |
| Metal | 19 | 23 | 552 | 533 | 3,8 | 18,6 | 256,5 | 235 |
| Paper/board | 52 | 67 | 448 | 465 | -10,0 | -0,2 | 33,8 | 42 |
| Glass | 1 | 1 | 57 | 64 | -9,0 | 2,1 | 5,8 | 2 |
| Total | 150 | 189 | 1805 | 1722 | -1,9 | 25,8 | 546 | 463 |

GENERAL REMARKS:

1. The total turnover in 2011 was 5% higher than 2010, although shared by fewer companies. The 26% of the 2010 companies didn't report financial data for year 2011. This indicates that a restructuring of packaging industry is taking place.
2. On the other hand, 2011 profits were nonexistent, as expected, due to the severe macroeconomic crisis in Greece. However, there are examples of individual companies with good performance in both turnover and profit before taxes. These were mostly companies with strong export profile.
3. A very promising sign for the Greek packaging industry and the Greek economy as a whole is the impressive increase of exports.
4. There are signs of recovery of the Greek packaging industry in 2012. This is the conclusion of AGMPM by observing the performance of the top companies in its database during the three quarters of 2012.

The **eleven tables** that follow summarize the 2011 results per packaging category/ sub-category. There are also short notes on the major players in each category/sub-category.

A more detailed analysis on categories/subcategories and individual companies exists in the Greek version of the present report (*Alexis Stassinopoulos. Mapping of the Greek Packaging Industry During 2011 (AGMPM Edition, November 2012)*), which can be downloaded from the website of the AGMPM (www.pac.gr)

PAPER AND BOARD PACKAGING

Paper and board packaging is grouped into three subcategories (**TABLES 2, 3 and 4**):

- Corrugated board and boxes from corrugated board, containing also industrial paper packaging.
- Packaging materials from paper and solid board: Cartons, labels, bags etc
- Paper and board for the packaging industry

TABLE2.Corrugated board and boxes/ Industrial paper packaging (in million €)

| COMPANY | Turnover | | Profits/losses | | Exports | | website |
|-----------------------------------|----------|--------|----------------|-------|---------|------|--|
| | 2011 | 2010 | 2011 | 2010 | 2011 | 2010 | |
| <u>Corrugated board and boxes</u> | | | | | | | |
| SCA PACKAGING A.E. | 54,65 | 50,10 | -0,25 | 2,00 | 0,00 | 1,00 | www.sca.com |
| HARTEL SA | 42,44 | 44,20 | -2,64 | 0,80 | | | www.hartel.gr |
| ELPACK SA | 36,41 | 33,50 | 0,26 | 0,31 | 0,36 | 1,00 | www.elpack.gr |
| VIS SA. | 26,25 | 27,60 | -0,06 | 0,25 | | | www.vis.gr |
| PACO SA | | 17,84 | | -1,60 | | | www.pako.gr |
| VIOKYT SA | 12,37 | 11,50 | 0,29 | -0,49 | | | www.viokyt.gr |
| CRETAN PAPERMIL SA | 10,45 | 10,40 | 0,05 | 0,45 | | | In the SCA group |
| N.G.P. SA | 9,71 | 13,80 | -2,48 | -0,49 | | | www.ngppack.gr |
| <u>Industrial paper packaging</u> | | | | | | | |
| SONOCO HELLAS SA | 28,74 | 24,93 | 0,10 | -0,28 | | | |
| MONDI PACKAGING SA | 12,87 | 12,00 | -0,12 | -0,39 | 7,07 | 3,60 | www.mondigroup.com |
| AGIS SA | 8,65 | 7,70 | -1,20 | -1,30 | | 1,00 | www.aigis.gr |
| IRAKLIS PACKAGING | 2,01 | 2,30 | -0,03 | 0,02 | | | |
| | | | | | | | |
| Total | 244,55 | 261,47 | -0,67 | -0,67 | 7,43 | 6,60 | |

The 80% of the corrugated board and box production is shared among the first four manufacturing companies. The export potential of corrugated boxes is limited. However, a large amount of corrugated boxes is indirectly exported as part of the packaging of exported final products (especially food products). The major companies are certified according to ISO 9001, 14001, and 2200.

SCA Packaging Hellas belongs to the SCA Packaging group. Has three production units in Corinth, in Thessaloniki, and recently in Crete (By acquiring the Cretan Paper-mill SA).

HARTEL belongs to Haitoglou food packaging group and has two production units in Thessaloniki. In addition to corrugated production, the company has a graphic arts production unit (labels and folding cartons)

EL PACK has two production units in Attica and Patra. To El Pack group belong Sigma Pack (corrugated board) Fthiotis Paper-mill (paper and solid board) and Belpack Ltd in Bulgaria.

VIS AE belongs to Philippou group of companies and has two production units in Volos.

In the list of corrugated board players we should add VIOKIT SA specialized in shelf ready packaging, and other niche applications of corrugated board.

MONDI PACKAGING (affiliate of MONDI) and AGIS SA (affiliate of Gascogne Sac) produce industrial paper bags. SONOCO Hellas produces paper cylinders and Iraklis Packaging produces egg-crates from paper pulp.

TABLE3. Paper and solid board packaging/graphic arts (in million €)

| COMPANY | Turnover | | Net results | | Exports | | website |
|--------------------------|----------|--------|-------------|-------|---------|-------|--|
| | 2011 | 2010 | 2011 | 2010 | 2011 | 2010 | |
| FIMI SA | 14,53 | 26,50 | 0,19 | -0,68 | | | www.fimi.gr |
| PAPERPACK TSOUKARIDIS SA | 11,71 | 11,64 | -0,44 | -0,04 | 0,40 | 2,00 | www.paperpack.gr |
| KOSKINIDIS SA | 10,03 | 12,10 | 0,10 | 0,14 | | 1,00 | www.koskinidis.gr |
| CHATZIOANNOU SA | 9,27 | 8,00 | -0,12 | 0,31 | | | www.luxuriouspackaging.com |
| ANTOPACK SA | 7,69 | 7,30 | 0,64 | 0,01 | 0,80 | 1,00 | http://antopack.dreamlab.gr/ |
| MARTANKOS SA. | 6,85 | 1,55 | 0,72 | 0,26 | | | www.martankos.com |
| SIGMAPACK SA | 5,3 | 5,10 | -0,51 | -0,46 | | | elpack@elpack.gr |
| ROI Bros SA | 5,17 | 5,60 | -0,08 | 0,15 | | | www.roisbros.gr |
| METRON SA | 5,12 | 6,80 | -0,38 | 0,08 | 0,50 | 1,00 | www.metronpack.gr |
| WEIDENHAMMER SA | 5,01 | 4,60 | -0,70 | 0,30 | | | www.weidenhammer.de/ |
| UNIPAK Hellas A.E. | 4,81 | 5,50 | -0,20 | -0,18 | | | www.indevcogroup.com/ |
| GIATSISSA PACK A.B.E.E. | 4,27 | 3,70 | 0,10 | 0,18 | | | www.giatsis.gr |
| FOKA Bros SA | 4,00 | 4,60 | -0,39 | -0,38 | | | www.fokaspackaging.gr |
| SOULAKOS SA | 3,96 | 4,20 | -0,03 | 0,01 | | | www.artiongraphic.gr/ |
| XENOS PACKAGING SA | 3,21 | 4,00 | 0,01 | 0,05 | | | www.xenospack.gr |
| ORFANOS SA | 3,18 | 3,80 | -0,04 | 0,21 | | | www.orfanosm.gr |
| KARAKOUSIS SA. | 2,72 | 3,10 | 0,09 | 0,18 | | | www.gkarakousis.gr |
| PAPERLAND SA | 2,1 | 2,30 | 0,06 | 0,02 | | | www.paperland.gr |
| BILIOURIS SA | 1,92 | 1,70 | 0,00 | 0,01 | | | http://www.mpack.gr |
| M-PACK SA | 1,91 | 1,70 | 0,02 | 0,04 | | | www.mpack.gr |
| IOANIDIS ALDI | 1,84 | 2,18 | 0,40 | 0,58 | | | |
| LITHOGRAFIKI SA. | 1,83 | 2,00 | 0,10 | -0,25 | | | www.lithografiki.com.gr |
| KALOGIANNIS SA | 1,69 | 1,70 | 0,03 | 0,07 | | | |
| MAVROGIANNIS SA | 1,66 | 1,56 | -0,09 | -0,07 | | | www.mavrogiannisboxes.gr |
| PRINTOPACK SA | 1,62 | 1,67 | -0,45 | 0,00 | | | |
| TYPOPACK SA | 1,55 | 1,50 | 0,03 | 0,01 | | | |
| TECHNOKYT SA. | 1,51 | 1,98 | 0,10 | 0,22 | | | - |
| HARTOPACK SA | 1,35 | 1,31 | 0,03 | 0,01 | | | www.hartopack.gr |
| MANDALOVAS SA | 1,12 | 0,86 | 1,14 | 0,03 | | | |
| KITSIOU SA | 1,08 | 1,20 | 0,03 | 0,05 | | | www.xartoplastiki-kitsiou.gr |
| MICHAILOVITS SA | 0,96 | 1,00 | 0,12 | 0,08 | | | www.michailovits.com |
| CHIMIOXART SA | 0,93 | 1,08 | -0,09 | 0,01 | | | |
| ROMVOS PACK SA | 0,55 | 0,05 | 0,02 | 0 | | | |
| CRETA HART SA | 0,41 | 0,35 | 0,00 | 0,00 | | | |
| TAMBAKI Bros SA | 0,15 | 0,17 | 0,02 | 0,02 | | | |
| KYTIOHART SA. | 0,08 | 0,50 | 0,01 | 0,00 | | | www.giazitzoglou.net |
| TOTAL | 131,09 | 181,15 | 0,44 | -0,26 | 1,70 | 12,17 | |

The production of labels, folded cartons, paper bags, sacs, etc is dispersed among a very large number of medium, small and very small companies. Many of these companies are

equipped with modern production facilities (including pre- and post- production) and are certified according to one or more quality standards.

The four major producers of labels, cartons and other packaging materials from paper and board are old well established companies:

FIMI 1892 PANAYOTOPOULOS Bros SA., established in 1892 has two factories located in Attica.

PAPERPACK – TSOUKARIDIS, established in 1891, is located in Kifisia (Attica).

KOSKINIDIS SA. established in 1922 is located in Attica.

ANTOPACK SA, established in 1898, is located in Volos

TABLE4: Paper and solid carton board for packaging (in million €)

| Company | Turnover | | Net results | | Exports | | webpage |
|---------------------|----------|-------|-------------|-------|---------|-------|--|
| | 2011 | 2010 | 2011 | 2010 | 2011 | 2010 | |
| MEL SA | 55,09 | 52,00 | -9,44 | 0,70 | 24,75 | 23,40 | www.melpaper.com |
| FTHIOTIS PAPER MILL | 12,29 | 11,60 | -0,36 | 0,62 | | | www.elpack.gr |
| TECHNOCART SA (*) | | 9,20 | | -0,01 | | 0,00 | www.technocart.gr |
| Total | 67,38 | 72,80 | -10,30 | 1,31 | 24,75 | 23,40 | |

(*) No 2011 results published

MEL SA (Macedonian paper-mill) is the most important carton board producing industry in Greece with a capacity of more than 100.000 t/y. MEL was acquired in 2011 by the Turkish group PAK Holdings (www.pakmaya.com.tr/) The factory in Thessaloniki is certified on ISO 9001, 14001, 22000.

FTHIOTIS PAPER MILL SA belongs to ELPAC Group. Έχει εγκαταστάσεις στη Λαμία και τον Πειραιά. In its plants in Piraeus and Lamia produces corrugated and solid board with a total capacity of 50.000 t/y.

TECHNOCART SA produces Kraft liner and other types of paper.

METAL PACKAGING

In this category are listed companies producing tinsplate packaging, rigid and flexible aluminum packaging, metal closures and steel drums (**TABLE 5**), and companies producing precursor materials for the metal packaging industry (**TABLE 6**). In this last subcategory belong two very strong companies exporting all over the world.

TABLE5: Metal packaging materials (in million €)

| COMPANY | Turnover | | Net results | | Exports | | website |
|----------------------|----------|--------|-------------|-------|---------|-------|--|
| | 2011 | 2010 | 2011 | 2010 | 2011 | 2010 | |
| CROWN HELLAS CAN | 140,17 | 134,00 | -0,90 | 11,10 | 49,20 | 47,00 | www.crownhellascan.gr |
| ELSA.SILGAN AE | 47,07 | 47,60 | -0,32 | 0,25 | 8,46 | 2,00 | www.silganmp.com/ |
| ARDAGH ΕΛΛΑΣ Α.Ε. | 25,73 | 25,20 | -1,40 | 1,00 | | 2,00 | www.natcan.gr |
| ASTIR VITIGIANNIS SA | 14,57 | 12,80 | 0,90 | 0,08 | 12,38 | 11,00 | www.vitogiannis.gr |

| | | | | | | | |
|--------------------------|--------|--------|-------|-------|-------|-------|--|
| ΛΕΥΚΟ/ΓΙΑ ΚΑΒΑΛΑΣ ΑΕ | 13,75 | 13,10 | 0,99 | 0,85 | 1,00 | 1,00 | www.lefka.gr |
| TECHNOCAN SA | 13,19 | 16,70 | 0,99 | 0,07 | | | www.technocan.com |
| GREIF HELLAS SA | 6,74 | 7,80 | 0,08 | 0,13 | | | www.greif.com |
| COROPOULIS SA | 4,09 | 3,80 | 0,15 | 0,02 | | | www.coropoulos.gr |
| ARAPOS SA. | 3,81 | 3,52 | 0,11 | 0,12 | | | www.arapos.gr |
| KAPANIKIS SA | 3,32 | 2,90 | 0,07 | 0,05 | | | |
| CRETANCAN SA | 2,37 | 2,16 | 0,00 | 0,00 | | | www.cretacan.gr |
| REVAN SA | 2,06 | 2,30 | 0,12 | 0,25 | | | |
| THESSALIKI SA | 1,48 | 1,70 | -0,01 | 0,04 | | | www.anthopoulos-ae.gr |
| GIANNIKIS METAL - CAN SA | 0,93 | 1,10 | 0,08 | 0,01 | | | |
| ILIOPOULOS SA | 0,28 | 0,40 | -0,99 | 0,89 | | | |
| UNICAN SA | 0,19 | 0,22 | -0,04 | 0,05 | | | |
| Σύνολο | 278,82 | 288,20 | -0,18 | 15,03 | 71,04 | 63,00 | |

CROWN HELLAS CAN belongs to Crown Inc., and produces aluminum containers in its two plants in Corinth and Patras and tinplate containers in its third plant in Sindos.

Most of other metal companies are producers of tin plate packaging.

ELSA.SILGAN is the largest Greek industry in tinplate packaging, with two factories in Attica and Thessaloniki. It belongs to the Silgan Packaging Group

.ARDAGH Hellas belongs to Ardagh Group. The factory is located in Pieria (Northern Greece).

TECHNOCAN is located in Attica and is specialized in containers for paints and technical applications.

LEFKOSIDIROURGIA KAVALLAS is located in Kavalla and is specialized in 20l containers for feta, oils and lubricants.

The only other two non tinplate companies in the list are:

ASTIR-VITOGIANNIS specialized in metal cap production. and GREIF Hellas producing steel drums.

TABLE 6: Metal packaging material precursors (in million €)

| COMPANY | Turnover | | Net results | | Exports | | website |
|---------------|----------|--------|-------------|-------|---------|--------|--|
| | 2011 | 2010 | 2011 | 2010 | 2011 | 2010 | |
| SYMETAL SA. | 161,91 | 151,80 | 2,74 | 0,89 | 129,50 | 121,00 | www.symetal.gr |
| ALOYMAN SA | 68,16 | 57,60 | -0,13 | 0,11 | 56,00 | 51,00 | www.aluman.gr |
| PROMETALSA | 37,28 | 32,60 | 1,86 | 2,80 | | | www.prometal.gr |
| LEFCOMETAL SA | 5,69 | 7,00 | -0,29 | -0,11 | | | www.lefcometal.gr |
| Total | 273,04 | 249,00 | 4,18 | 3,69 | 185,50 | 172,00 | |

SYMETAL is member of ELVAL-VIOHALCO Group. The company is a major European producer of aluminum foil. Its two production plants in Attica and Viotia are producing

aluminum film (6-180 μ) as well as packaging material from Alu film. Turnover is estimated to 50.000t/y.

ALOUMAN is a major European producer of performs (discs), precursors to the production of aluminum tubes, aerosol cans and bottles. Its factory is located in Viotia.

To these three companies, one should add ELVAL SA (www.elval.gr) (VIOHALCO Group) whose sheet in roles is the precursor to the production of aluminum cans (bodies and caps).

PROMETAL and LEFCOMETAL are converters of tin plate from rolls into sheets, precursors of tinplate packaging.

PLASTIC PACKAGING

In this category are grouped four subcategories:

- Rigid plastic packaging (**TABLE 7**)
- Flexible plastic packaging: Producers of polyolefin packaging film and products (**TABLE 8**)
- Flexible packaging-Converters (**TABLE 9**)
- Precursors in plastic packaging materials manufacturing (TABLE 10)

TABLE 7: Rigid plastic packaging (in million €)

| COMPANY | Turnover | | Net result | | Exports | | website |
|-------------------------|----------|-------|------------|-------|---------|------|--|
| | 2011 | 2010 | 2011 | 2010 | 2011 | 2010 | |
| MORNOS SA | 58,68 | 66,20 | -3,65 | -2,14 | 5,90 | 3,00 | www.mo.gr |
| THRACE PLASTICS PACK SA | 32,73 | 32,75 | -2,62 | -4,41 | 6,50 | 8,30 | www.thraceplastics.gr |
| ARGO SA | 23,23 | 19,68 | 2,61 | 1,59 | 8,05 | 6,00 | www.argo-sa.gr |
| PAIRIS SA. | 14,53 | 14,16 | -0,47 | -0,46 | | | www.pairis.gr |
| I.B.S. SA | 12,54 | 11,94 | 0,54 | 0,91 | | | www.ibs.com.gr |
| KOTRONIS SA | 9,54 | 8,30 | 0,80 | 0,82 | | | www.kotronis-plastics.gr |
| BONAPLAST SA | 7,81 | 7,20 | 0,01 | 0,01 | 0,50 | 0,50 | www.bonaplast.gr |
| N.G.P. PLASTIC SA | 8,03 | 7,22 | -3,01 | -1,54 | | | www.ngpplastic.gr |
| B&B PACKAGING SA | 7,80 | 7,50 | 0,19 | 0,30 | | | www.bbpackaging.gr |
| ELOPAK PLASTIC SA | 7,36 | 6,82 | 0,00 | -0,64 | | | www.pairis.gr |
| HARMBIS SA | 5,59 | 5,50 | 0,42 | 0,80 | | | |
| METALLOPLASTIKI SA | 5,02 | 5,80 | -0,09 | 0,05 | | | www.metalloplastiki.gr |
| NEOPLAST SA.. | 4,52 | 4,70 | 0,66 | 0,68 | | | www.neoplast.gr |
| FIALOPLASTIKH SA | 4,43 | 3,40 | 0,30 | 0,01 | | | www.fialoplastiki.gr |
| PABIPLAST SA | 4,31 | 3,70 | 0,03 | 0,02 | | | www.paviplast.gr |
| KIWOPLAST SA | 3,65 | 3,40 | 0,08 | 0,08 | | | www.kiwoplast.gr |
| FIALPET SA | 3,18 | 3,90 | -0,60 | 0,00 | | | www.fialpet.gr |
| ROTSAL SA | 2,58 | 3,30 | -0,15 | 0,06 | | | www.rotosal.gr |
| FONTANA DI PLASTICA | 2,55 | 2,50 | 0,04 | 0,06 | | | |
| BLOW PLAST LTD | 1,60 | 1,70 | -0,15 | -0,22 | | | www.blowplast.gr |
| LEON PLAST SA | 1,50 | 1,65 | 0,00 | 0,02 | | | |

| | | | | | | | |
|------------------------|--------|--------|--------|-------|-------|-------|--|
| MARCOPOULOS SA | 1,38 | 1,50 | -0,25 | -0,27 | | | |
| TRICALA PLASTICS A.E. | 1,28 | 1,85 | 0,04 | 0,06 | | | |
| ACTUS SA | 0,85 | 0,62 | 0,02 | -0,18 | | | www.actus-sa.gr |
| FARMAPLAST SA | 0,81 | 1,30 | -0,24 | 0,08 | | | |
| IKOPLAST SA | 0,69 | 0,82 | 0,00 | 0,00 | | | www.ikoplast.gr |
| CAPSNAP Hellas SA | 0,60 | 1,19 | -0,26 | 0,00 | | | www.capsnap.gr |
| KRYSTAL KRITI SA | 0,59 | 1,60 | 0,00 | 0,03 | | | http://www.krystal.gr/ |
| Expanded Polystyrene | | | | | | | |
| TIKTAS SA | 11,90 | 13,67 | -1,07 | -1,52 | | | www.tiktas.gr |
| POLYFORMA SA | 8,85 | 8,70 | -0,07 | -0,34 | | | www.polyforma.gr |
| RIZAKOS SA | 6,83 | 7,30 | -0,47 | -0,30 | | | www.rizakos.gr |
| PROKOS SA | 4,14 | 3,80 | -0,24 | -0,53 | | | www.iso-pack.com |
| MONOSI SA | 3,18 | 2,70 | 0,19 | 0,13 | | | www.monosi-syskevasia.com |
| THRACE PLASTICS EPS SA | 1,82 | 1,37 | - 0,70 | -0,81 | 0,81 | 0,47 | www.thraceplastics.gr |
| Σύνολο | 257,85 | 290,56 | -7,71 | -6,13 | 20,95 | 17,80 | |

The three leading companies in the category of rigid packaging are Mornos, Thrace Plastics and Argo. All three are certified according to ISO quality system standards.

MORNOS is the largest food plastic packaging industry in SE Europe, producing almost every type of plastic packaging. Its turnover is shared among rigid packaging (45%) and flexible packaging (40%). The other 15% is paper and printed paper and board packaging. The main production unit is in Thebes. The company is operating according to ISO 9001, ISO 14001, ISO 22000, BRC IoP, FDA IMS, and OHSAS.

THRACE PLASTICS PACK belongs to the Thrace Plastics Group of companies. In two factories in Xanthi and Ioannina the company produces rigid including cups, tubs and lids, larger open containers, PC bottles etc. Two other packaging companies belong to the same group. They are THRACE PLASTICS SA (See Flexible packaging) and THRACE PLASTIC Expanded PS SA producing food packaging from expanded polystyrene. There are also production units in Turkey, Bulgaria and Romania.

ARGO is an innovative company, fully committed in the production of rigid plastics (bottles, caps, tubes, medical devices etc.). It is the largest Greek exporter of rigid plastic packaging materials. The Greek production plant is in Koropi (Attica), which is certified according to ISO 15378 (primary packaging materials for medicinal products). All its factories in Greece and abroad (Bucharest, Cairo) are certified according to ISO 9001 and 14001.

In the group of rigid plastic packaging is included the subgroup of companies producing packaging materials from expanded polystyrene.

TABLE8. Flexible plastic packaging: Producers of polyolefin films and film products (in million €).

| COMPANY | Turnover | | Net result | | Exports | | website |
|--------------------|----------|-------|------------|------|---------|-------|--|
| | 2011 | 2010 | 2011 | 2010 | 2011 | 2010 | |
| KARATZIS SA | 52,68 | 43,60 | 5,81 | 4,44 | 45,00 | 36,50 | www.karatzis.gr |
| FLEXOPACK SA | 47,47 | 44,80 | 3,89 | 3,67 | 34,20 | 31,50 | www.flexopack.gr |
| EUROFILM SA | 15,01 | 12,00 | 0,46 | 0,40 | | | www.eurofilm.gr |
| THRACE PLASTICS SA | 13,45 | 15,21 | 1,01 | 0,01 | 7,53 | 7,61 | www.thraceplastics.gr |

| | | | | | | | |
|----------------------|--------|--------|-------|-------|-------|-------|--|
| MEGA PLAST SA | 12,89 | 14,40 | 1,02 | 1,61 | 12,0 | 14,00 | www.megaplast.gr |
| PANCHART SA | 11,69 | 10,48 | 0,17 | 0,15 | | | www.panchart.gr |
| ACHAIKA PLASTIKA SA | 10,81 | 10,70 | 0,09 | 0,15 | | | www.achaika.gr |
| STRAPTECH SA | 10,04 | 9,42 | -0,97 | -1,19 | | | www.maillis.gr |
| PLASTIMAK SA | 5,31 | 3,80 | 0,04 | 0,01 | | | www.plastimak.com.gr |
| EVISAK SA | 4,55 | 4,41 | 0,05 | 0,32 | | | - |
| SEALED AIR HELLAS SA | 3,76 | 3,60 | 0,39 | 0,44 | | | www.sealedair.com |
| CIVIL LTD | 3,38 | 3,34 | 0,01 | 0,12 | | | www.civilplastics.gr |
| PROSY SA | 3,07 | 3,30 | 0,17 | 0,20 | | | www.prosi.gr/ |
| LEPTIDIS SA | 2,99 | 3,90 | 0,03 | 0,01 | | | www.leptidis.gr |
| TIMIPLAST SA | 2,91 | 2,70 | 0,17 | 0,28 | | | www.timiplast.gr |
| ELVIPLAS SA | 2,69 | 3,32 | 0,03 | 0,09 | | | |
| KATSAOUNIS SA | 2,41 | 2,30 | 0,01 | 0,01 | | | www.katsaounisbros.gr |
| GEORGIU SA | 2,37 | 2,70 | 0,00 | 0,11 | | | www.georgioubags.gr |
| ALPHAPACK SA | 1,7 | 1,43 | 0,02 | 0,01 | | | alphapack@a-pack.gr |
| PIRAIKA PLASTIKA SA | 1,68 | 1,59 | 0,02 | 0,02 | | | |
| STOURBAS SA | 1,66 | 3,20 | 0,06 | 0,19 | | | www.stourbas.gr |
| SAKOULAS SA | 1,52 | 1,00 | 0,04 | 0,00 | | | |
| GARAGOU SA | 1,42 | 1,30 | 0,00 | 0,02 | | | |
| EVROPAK SA | 1,47 | 1,80 | -0,01 | 0,04 | | | www.europack.com.gr/ |
| EX-PLUS SA | 1,18 | 1,57 | 0,02 | 0,02 | | | |
| EUROPACK SA | 1,09 | 1,28 | 0,01 | 0,03 | | | - |
| GARAGOS SA | 0,77 | 0,75 | -0,03 | 0,00 | | | |
| KARDITSA PLASTIC | 0,74 | 1,30 | -0,19 | -0,07 | | | |
| CHEM PLAST SA | 0,17 | 0,16 | 0,02 | 0,01 | | | |
| | | | | | | | |
| TOTAL | 202,58 | 203,95 | 11,37 | 11,47 | 91,20 | 82,00 | |

The products in this category start from simple PE film and bags and end-up to sophisticate products and innovative applications. In the production of simple PE film and bags are involved more than 40 small producers, not included in this table (no reliable data available). The main companies in the flexible packaging category are:

FLEXOPACK is producing coextruded film (up-to-nine layers), high shrink-high barrier films, palletizing films etc. Its two production sites are located at Koropi (Attica).

KARATZIS is a major European net producer. The company offers netting solutions for fresh produce and fruits, ham, palletizing, and other consumer, agricultural and industrial applications. There are two Greek production sites (in Crete and in Larissa) and one in Germany.

MEGA PLAST produces the innovative ventilated stretch film for palletizing (Air-o-Film). Its production site is in Crete, and has an extensive sales network all over the world.

THRACE PLASTICS SA is the flexible plastic packaging sector of the THRACE PLASTICS Group. Production in its factory in Xanthi includes pelletizing films, big bags, heavy duty bags etc. The largest part of its exports comes from flexible packaging.

DIAXON belongs to the Hellenic Petroleum Group. In its plant in Komotini the company produces bi-oriented PP film (BOPP) with a capacity of 25.000t/y.

In this category are included three important companies producing high quality traditional flexible PE products:

ACHAIKA PLASTIKA has three production sites in Patra, and Komotini producing shrink and stretch film, mega sacs, sacs with valve etc. Are ISO 14001 and ISO 9001 certified.

PANCHART produces PE film and bags in its factory in Athens area (certified according to ISO 9001).

EUROFILM produces PE film, sacs and bags in its factory in Korinthos .

TABLE9. Flexible packaging-Converters (in million €)

| COMPANY | Turnover | | Net result | | Export | | website |
|-------------------|----------|--------|------------|-------|--------|-------|--|
| | 2011 | 2010 | 2011 | 2010 | 2011 | 2010 | |
| ATLAS TAPES SA | 53,08 | 40,00 | 1,63 | -0,77 | 42,40 | 21,70 | www.atlas-tapes.gr |
| A. HATZOPOULOS SA | 48,81 | 45,00 | 0,72 | 0,47 | 29,77 | 23,00 | www.hatzopoulos.gr |
| ALFA BETA ROTO SA | 41,45 | 33,00 | 0,83 | 0,81 | 30,90 | 23,00 | www.alfabetaroto.com |
| TSIMIS SA | 30,01 | 25,17 | 0,77 | -0,75 | 12,00 | 7,00 | www.tsimis.gr |
| VLACHOU Bros SA | 13,68 | 11,75 | -0,57 | -0,07 | | 0,00 | www.vlachosbrossa.gr |
| ADAMS ECO PACK SA | 6,14 | 3,50 | 0,40 | 0,10 | | | www.adams.gr |
| FORLABELS SA | 4,90 | 4,77 | 0,39 | 0,36 | 0,09 | 0,06 | www.forlabels.gr/ |
| FLEXO SA | 4,09 | 4,80 | 0,35 | 0,50 | | 0,00 | |
| SINOPOULOU SA | 3,8 | 3,30 | 0,10 | 0,13 | | | www.sino.gr |
| TECSIR SA | 2,99 | 3,10 | 0,37 | 0,10 | 1,50 | 3,00 | www.tecsir.gr |
| PLUSPACK SA. | 2,81 | 2,60 | 0,29 | 0,08 | | 0,00 | www.pluspack.gr |
| TYOPLASTIKH SERON | 0,74 | 0,90 | 0,03 | -0,01 | | 0,00 | |
| SELCO SA | 0,63 | 0,76 | 0,02 | 0,04 | | | http://www.selko.gr |
| KARADIMOGLOU SA. | 0,60 | 0,86 | -0,02 | 0,02 | | 0,00 | http://www.fokion.gr/ |
| TOTAL | 213,73 | 189,15 | 5,31 | 1,44 | 116,66 | 77,76 | |

In this category belong three converting companies with high level expertise, innovative, and export oriented. They update their manufacturing facilities and are fully certified:

A. HATZOPOULOS SA operates in two production sites in Thessaloniki, and sales offices across Europe. The company is continuously investing in manufacturing and control equipment and in quality systems. It is certified according to ISO 9001, 22000, 14001, BRC/IoP, American Institute of Bakery.

ALFA BETA ROTO has three production sites in Komotini, Attica, and Khalkidhiki (after the acquisition of Adams Eco Pack). It is a flexible, export oriented company. Is certified according to ISO 9001, 22000, 14001 and BRC.

TSIMIS operates in a modern production site located in Lamia and is certified according to ISO 9001 and HACCP. It is capable of fulfilling any customers' requirements in flexible packaging, and is exporting in many countries.

In the same category are also included two important converters with targeted, high level production.

ATLAS TAPES is a vertical producer of self adhesive tapes (packaging, masking, stationary etc), and one of the most important European companies in its field. The company makes a comprehensive range of self adhesive tapes in all existing technologies. The factory is in Atalanti and is certified according to ISO 9001.

FORLABELS is a fast growing innovating company focused on labels and labeling. Its factory in Schimitari (Viotia) is equipped with every modern technology in label printing and converting.

Table10. Precursors in plastic material manufacturing

| COMPANY | Turnover | | Net result | | Export | | website |
|--------------------|----------|-------|------------|-------|--------|------|--|
| | | | | | | | |
| DFH DRUCKFARBEN | 34,71 | 36,85 | 0,16 | 0,84 | 6,93 | 8,12 | www.druckfarben.gr |
| RESILUX ΕΛΛΑΣ ABEE | 19,83 | 13,65 | -0,46 | -0,31 | 5,95 | 2,70 | www.resilux.gr |
| DIAXON ABEE | 14,95 | 15,00 | 3,67 | 3,81 | 9,00 | 9,00 | www.hellenic-petroleum.gr |
| HATZOPOULOS G, SA | 2,27 | 2,30 | 3,67 | -0,03 | | | |
| Total | | | | | | | |

DFH DRUCKFARBEN is a major producer, export oriented, of printing inks for all graphic arts and flexible packaging applications.

In this subcategory are mentioned several producers of colored master batches and other additives for the plastics industry.

GLASS PACKAGING

Table11. Glass packaging

| COMPANY | Turnover | | Net result | | Exports | | webpage |
|----------|----------|-------|------------|------|---------|------|--|
| | 2011 | 2010 | 2011 | 2010 | 2011 | 2010 | |
| YOULA SA | 57,25 | 63,60 | -8,98 | 2,08 | 5,80 | 2,00 | www.yioula.gr |

There is only one producer of glass packaging in Greece, Yioula SA, which has consolidated all small glass factories existing in the past. YIOULA SA (www.yioula.gr) produces bottles and jars in its factory in Aegaleo (Attica).

In the YIOULA Group belong six more glass packaging manufacturing companies in Bulgaria, Ukraine, and Romania.

ANEX1. Packaging materials' production chain

