PERFIL

2021

THE **PLASTIC TRANSFORMATION AND RECYCLING** INDUSTRIES IN BRAZIL

abiplast
Associação Brasileira da Indústria do Plástico

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Prepared by:

abiplast

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PERFIL 2021

ABIPLAST

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The plastic transformation and recycling industries have found national representation and support for over five decades, at the Brazilian."

Brazilian Association of the Plastic Industry | ABIPLAST

ABIPLAST

Plastic Industry Association (**ABIPLAST**), since the segment started to develop in the country. The work started in 1967 and currently serves to a total of more than 12 thousand companies and almost 350 thousand professionals.

To keep this representation strong, the entity relies on the joint and collaborative work of 21 state unions, which strengthen the sector regionally, and partner associations, which contribute to reiterating the importance of our industry.

The entity, in addition to defending interests and providing assistance to the category through various services and initiatives, has the mission of valuing plastic, promoting the sector and its competitiveness, as well as technological advances with a focus on sustainability.

For Brazil, the progress of this industrial activity has a multiplying effect and proves to be important for providing numerous economic and socio-environmental benefits.

The concrete implementation of Circular Economy in the production chain is at the top of **ABIPLAST's** priorities. The entity works in this direction, developing together with its associates actions that prepare the sector for the new reality that is being outlined and gradually advancing towards effective results.

Circular Economy, production and conscious consumption demand new applicability of plastic material, which should add greater value to processed products, and lead to innovations both in raw materials and products and in technologies, processes and business models.

Innovation has been the beacon that guides the course of ABIPLAST's actions, with the goal to keep plastic products – including those that use recycled content – as the best solution for many human needs; and integrating plastic material with new market demands and trends.

Check the member companies

W O R D   O F   T H E   P R E S I D E N T

I hope that 2021 Profile is important in terms of the sector's dimension and in what we believe to be an action to ensure its competitiveness, with solid foundations in productive evolution and innovation. Together, let's continue our journey of transformation."

After two atypical years (2020 and 2021), with many challenges and learnings due to Covid-19 and everything that involved the pandemic, we enter 2022 with new perspectives. The health issue still forces us to maintain attention and care, but vaccines made it possible to control the virus and, consequently, imposed a horizon of new guidelines. The use of plastic was of fundamental importance in facing the pandemic in the production of masks, syringes for vaccines, utensils and packaging that gave asepsis to deliveries to homes and hospitals.

It is a special year, in which we will have elections, with the choice of several representatives for the state and federal levels, including the President of the Republic. The general election brings many expectations and uncertainties, but also opportunities for openness to the debate of relevant issues. It is a time when we can shed light on issues capable of bringing great changes to the industrial sector and to society as a whole.

In the current context of global cooperation on the issue of the climate crisis, in which politicians, scientists, environmentalists, companies and civil society seek joint solutions to a systemic issue, I reinforce the urgent need to also act with an integrated view among so many common goals.

An example is how the public and the private sector can jointly work, through cooperation and the sum of efforts, on urban solid waste solutions - among them, plastic. Increasing waste recovery rates, seeking innovation and technology for infrastructure in waste management are some important topics – and the focus of much work within **ABIPLAST**.

With this in mind, in 2022 we have already delivered the project "Business Models for Improving Urban Solid Waste Management in Brazil" - in partnership with ABDI, technical consultancy by Pieracciani and a strategic partnership with Rede pela Circularidade do Plástico (REDE). The report brings proposals involving private and governmental actors. "Recicla Guarujá" was also launched, a partnership between companies and the city government – one of REDE's initiatives.

We are attentive to the themes of recycling and solid waste management. More than its relevance to business, there are a series of new decrees released at the beginning of the year by the government, which endorses the essentiality and urgency of addressing these guidelines, with broad debate and effective actions. It is an invitation for everyone to participate in these essential discussions, with new perspectives and new exits.

José Ricardo Roriz Coelho
President ABIPLAST

ABIPLAST'S PERFORMANCE IN THE COMPETITIVENESS OF PLASTIC TRANSFORMATION AND RECYCLING INDUSTRIES

Access to Competitive Raw Materials

Search for integration and strengthening of the Brazilian production chain with the international market, targeting new suppliers and/or partners in favor of competitiveness and innovation.

Market Access and Development

With an eye on the Circular Economy, innovation and industry 4.0, ABIPLAST follows Brazilian and international trends and opportunities so that the sector's industries are always aligned with current discussions. In addition, it also monitors lines of financing that allow companies to invest.

Economic Advisory and Market Intelligence

Monitoring the sector and its competitiveness through research and monitoring of data from Brazil and international references, allowing the preparation of materials that support companies in the sector, identifying challenges and opportunities.

Technical Advisory

Monitoring of regulations, technical standards, ordinances and laws in force regarding plastic products in order to ensure that they are up to date with the reality of basic industrial technologies and technological infrastructure in the sector, in addition to advising on implementation in companies.

Labor Advisory

In partnership with SINDIPLAST, the Association monitors the Collective Bargaining that take place annually, in addition to advising on labor and union areas, advising companies and contributing to a healthy relationship between Capital and Labor.

ABIPLAST'S PERFORMANCE IN THE COMPETITIVENESS OF PLASTIC TRANSFORMATION AND RECYCLING INDUSTRIES

Project Management and Solution Development

ABIPLAST believes that collaboration and the union of actors allow the execution of projects with great results for the sector. In this way, it has a qualified team available to manage projects for companies in the sector.

Tax Claims

ABIPLAST believes in the importance of tax isonomy in the industrial sector in relation to other sectors of the economy, in addition to working according to the current tax logic, contemplating the dynamics of circularity of new business models.

Institutional and Governmental Relations

With the objective of uniting actors and building collectively, ABIPLAST works in the institutional and governmental spheres to strengthen the plastic transformation and recycling industries.

ABIPLAST'S PERFORMANCE IN PROJECTS AND INITIATIVES FOCUSED ON SUSTAINABILITY

Business Models for RSU Management and Reverse Logistics

With the objective of developing partnership models between companies and municipalities with financial sustainability, ABIPLAST and ABDI joined forces, in partnership with the Rede pela Circularidade do Plástico, to propose models capable of optimizing RSU management and contributing to reverse logistics of products, uniting private and municipal actors.

Rede pela Circularidade do Plástico

Created in 2018 by an initiative of ABIPLAST, it is the first Brazilian initiative in favor of the Circular Economy of plastic, involving all links in the plastic packaging production chain. REDE works to increase the recyclability of plastic packaging and the availability of plastic waste for recycling.

movimento plástico transforma

In order to highlight the use of plastic in a creative and responsible way, the Movement was created in 2016, the result of a partnership between ABIPLAST and Braskem. The initiative, which has already affected thousands of people, develops content, educational and interactive actions, encourages innovation and shows that plastic, combined with technology, creativity and responsibility, brings countless possibilities for our daily lives and for the future.

ABIPLAST'S PERFORMANCE IN PROJECTS AND INITIATIVES FOCUSED ON SUSTAINABILITY

With the objective of informing citizens about the feasibility of recycling Isopor®, the program managed by ABIPLAST in partnership with several actors, promotes the correct destination of trays, boxes, lunchboxes and other EPS/XPS packaging. The program, which began at the Perini Business Park in Joinville – the largest multisectoral business park in South America – allowed this waste to have an average compliance level of 73%, indicating an increasingly correct disposal of this waste by the population.

To encourage the recycling of post-consumer plastic buckets in civil construction, Descarta Aí project began in 2022, the result of a partnership between ABIPLAST and COFABI. The initiative allows consumers and self-employed professionals in civil construction to have an environmentally appropriate and easily accessible option for disposing of buckets and their lids after consuming the products.

Packaging Reverse Logistics System | Sector Agreement

ABIPLAST, along with other sectoral associations, is a member of Coalizão Embalagens that since 2015 has been working, through the General Packaging Sector Agreement, in the National Program for Reverse Logistics of Packaging, in compliance with the PNRS. The objective is to increase post-consumer packaging recycling rates.

separenaopare.com.br

O Separe. Não Pare is one of the initiatives that belong to Coalizão Embalagens, to meet the PNRS. The Campaign seeks to inform, inspire and mobilize the Brazilian population to correctly separate and dispose of household waste. With a dedicated portal and an active presence on the main social networks, it delivers exclusive and educational content daily, helping to create and consolidate the culture of recycling. Throughout 2021, the initiative had more than 67 thousand interactions on Facebook and Instagram.

ABIPLAST'S PERFORMANCE IN PROJECTS AND INITIATIVES FOCUSED ON SUSTAINABILITY

SENAPLAS
SELO NACIONAL DE PLÁSTICOS RECICLADOS
ABIPLAST

The result of a partnership between ABIPLAST and CNRPLAS, SENAPLAS is a seal of appreciation for recycling companies and post-consumer plastic resin with better performance. The Company modality identifies and values recyclers who work within the social, environmental and economic criteria required by law. SENAPLAS Product certifies recycled plastic in order to enhance the product and ensure a higher quality material for the market, based on the methodology of the European EuCertPlast certification.

PPZ | Zero OCS® Pellet Program

ABIPLAST was the first licensor of the program in Brazil in 2014, adapting the initiative to the particularities of the Brazilian plastics industry. The objective is to engage and implement actions in the sector in a continuous action to reduce the loss of pellets in plants for the transformation and recycling of plastic materials.

Plastic Circularity System

Coming Soon!

Tracking plastic waste, from disposal to reinsertion as raw material in the manufacture of a new product, is the objective of the digital platform being developed by ABIPLAST and ABDI in partnership with Central de Custódia.

CHECK OUT OUR POSITIONING AND INITIATIVES SUPPORTED BY ABIPLAST

www.feitoparacircular.com.br

feito para circular

PLASTIC IN THE WORLD

HISTORY AND EVOLUTION OF PLASTIC

Click to see the full history of plastic

1900

Plastic emergence

1900 – 1950

Plastic in the manufacture of clothing and objects

1960 – 1980

From decoration to children's games

1990 – 2000

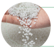
Plastics in automotive and food industries.

Beginning of a greater recycling visibility.

1990 – 2000

Turn of the millennium: plastics have a bright future

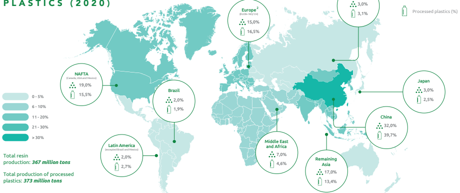
Technological advances and applicability



Click to know more about the origin of plastic

Click to see the advances of plastic on medicine

WORLD PRODUCTION ON THE RESINS AND PROCESSED PLASTICS (2020)



Total resin production: ***367 million tons***

Total production of processed plastics: ***373 million tons***

[1] Production data for resins include thermoplastics, polyurethanes, thermosets, elastomers, adhesives, coatings and sealants and PP fibers.

[2] The Europe comprises the countries of the European Union, Switzerland and Norway.

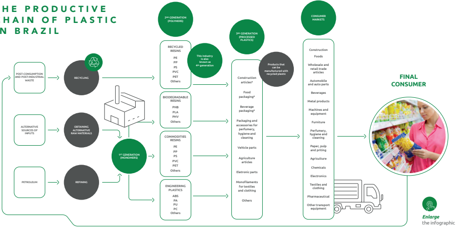
[3] The CIS (Commonwealth of Independent States) comprises the following countries: Armenia, Belarus, Kazakhstan, Russian Federation, Moldavia, Kyrgyzstan, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, Georgia, and Azerbaijan.

Sources: **Comtrade, Plastics Europe, Comexstat/ Ministry of Economy, Monthly Industrial Survey - Physical Production and Annual Industrial Survey/ IBGE. Prepared by: ABIPLAST.**

PRODUCTIVE CHAIN AND APPLICATIONS OF PLASTIC MATERIAL

17

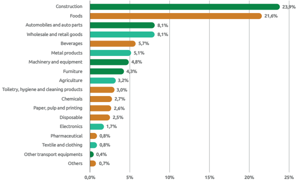
THE PRODUCTIVE CHAIN OF PLASTIC IN BRAZIL

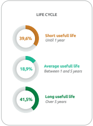


Enlarge the infographic

* Packaging must comply with ANVISA's RDCs.

CONSUMERS SECTORS OF PROCESSED PLASTICS - IN VALUE OF CONSUMPTION (2019)[4]





[4] **Note:** The percentages of each application were updated because of the updating of the criteria for defining the life cycles of plastic products. In addition, the item "Others" was included and refers to the extraction of inputs.

Sources: Table of Uses of Goods and Services and Annual Industrial Survey - Products/ IBGE. Prepared by: ABIPLAST.

LIFE CYCLE ASSESSMENT (LCA) | METHODOLOGY FOR PRODUCT EVALUATION

LCA studies the environmental aspects and potential impacts throughout the life of a product (i.e. from "cradle to grave" or "cradle to cradle"), from raw material acquisition/ fabrication, through production, use, post-use, proper disposal and reintroduction into the production cycle. General categories of environmental impacts that need to be considered include resource use, human health and ecological consequences (adapted from NBR ISO 14040:2001).

House Paint Bucket (PP)

Assessing all impact categories together, the plastic bucket is less harmful to the environment than traditional packaging. The use of plastic buckets is less impactful for global warming.

Chocolate Milk Packaging (PE)

Even with a lower recycling rate, the plastic alternative is the best option, reducing, for example, the environmental impact related to global warming.

Disposable cup (PP)

The plastic cup is lighter, uses less water in its production process and is recyclable. The use of the plastic cup reduces the environmental impact on land use when compared to the substitute.

Non-woven surgical kit (TNT-PP)

The non-woven option does not require washing, sanitizing or chemical products for sterilization, and consuming less water in its life cycle, thus reducing the environmental impact, in addition to being more effective in preventing hospital infections.

Raffia bags (PP)

The raffia bag is reusable, as it is more resistant and safer, it is lighter, and it has less environmental impact in the distribution stage due to the reduction of fuel consumption in transport. Another advantage is its resistance to humidity and tearing, preventing losses of the packaged product. Raffia bags also consume less water in its life cycle when compared to other material.

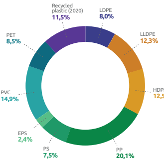
Pallet (PE)

The plastic pallet allows about 24 reuses against four in substitute material, so the impacts on land use are very low.

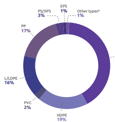
Source: Life Cycle Assessment Studies/PICPlast.

Click for full studies!

MAIN RESINS CONSUMED IN BRAZIL % (2021)



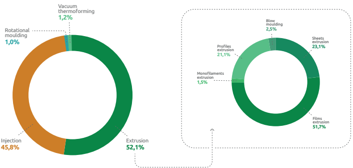
PRODUCTION OF POST-CONSUMER RESIN - PCR (2020)



* Other types include ABS, PC, POM, PBT, PA, PU, SAN.

Sources: Annual Industrial Survey - Product, Monthly Industrial Survey - Physical Production/ IBGE, Comexstat/ Ministry of Economy, Braskem Earnings Release and MaxiQuim/ PICPlast Recycling Survey. Prepared by: ABIPLAST.

PRODUCTIVE PROCESSES FOR MANUFACTURING PROCESSED PLASTICS



Sources: Annual Industrial Survey - Product/ IBGE. Prepared by: ABIPLAST.

PRODUCTIVE PROCESSES FOR MANUFACTURING PROCESSED PLASTICS

EXTRUSION

Consists of forcing the controlled passage of the cast plastic material through a cylinder and upon its exit, the material is compressed in a matrix into the desired shape of the product. This process is used to make, for instance, sheets, profiles, of films for later finish.

Blow moulding:

Consists in the extrusion of a "house" commonly known as parison wich is inserted into a mould and by compressed air injected inside forms a hollow product. It is the process used to make bottles, gallons, packaging for foods, cosmetics, cleaning products, and automotive tanks.

Profiles extrusion:

Used to make pipes, coated cables, wires, and hoses for civil construction.

Monofilaments extrusion:

To make continuous and fine filaments, such as fishing lines, brush and broom bristles, and when braided they originate products such as ropes, cables, fishing nets, screens in general, etc. Fibres for the textile industry can also be made.

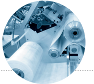
Sheets extrusion:

Used to make sheets and plates that will be used as input for the production of thermoformed packaging and White line accessories, such as refrigerators and microwave ovens.

Films extrusion:

Produces very fine, mono and multilayer films that will be later used to make flexible packaging.

PRODUCTIVE PROCESSES FOR MANUFACTURING PROCESSED PLASTICS



INJECTION

This process gives very specific details to the products such as threads, holes, and perfect fitting, and is very much used in the auto parts industry (such as car dashboards) making intermediate products that serve as inputs for the automotive industry and also to produce household items intended for the end consumer.

ROTATIONAL MOULDING

Use to make hollow products such as toy pieces (doll heads and parts) or large parts such as agricultural machine and water tanks.

VACUUM THERMOFORMING

Process to mould parts by using plates os sheets (made by extrusion). Consists of heating the sheet wich receives vacum to remove the air caught between the sheet and the mould to enable the forming of the final part. This technique is used to manufacture products such as disposable utensils, trays, autoparts, etc

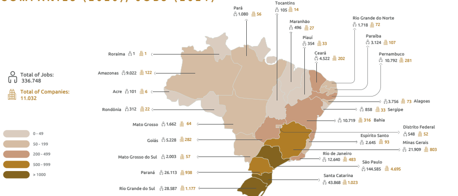
OTHER PROCESS

BLOWN INJECTION

The blown injection is a variation very much used to make PET bottles, combining both injection (pre-mould) and blown (PET bottles) processes in the same machine.

THE PROCESSED PLASTICS INDUSTRY IN BRAZIL

LOCATION OF COMPANIES AND JOBS OF THE PROCESSED PLASTICS SECTOR IN BRAZIL, BY STATE. COMPANIES (2020), JOBS (2021)



Sources: RAIS, Caged/ Ministry of Economy. Prepared by: ABIPLAST.

DISTRIBUTION OF COMPANIES AND JOBS OF THE PROCESSED PLASTICS SECTOR, BY STATE

COMPANIES

State	Companies 2020	Participation on Brazil (%)
São Paulo	4.695	42,6%
Rio Grande do Sul	1.177	10,7%
Santa Catarina	1.023	9,3%
Paraná	938	8,5%
Minas Gerais	803	7,3%
Rio de Janeiro	483	4,4%
Bahia	316	2,9%
Goiás	282	2,6%
Pernambuco	281	2,5%
Ceará	202	1,8%
Amazonas	122	1,1%
Paraíba	107	1,0%
Espírito Santo	93	0,8%
Alagoas	73	0,7%
Rio Grande do Norte	72	0,7%
Mato Grosso	64	0,6%
Mato Grosso do Sul	57	0,5%
Pará	56	0,5%
Distrito Federal	52	0,5%
Piauí	33	0,3%
Sergipe	33	0,3%
Maranhão	27	0,2%
Rondônia	22	0,2%
Tocantins	14	0,1%
Acre	6	0,1%
Roraima	1	0,0%
BRASIL	11.032	100%

JOBS

State	Jobs 2021	Participation on Brazil (%)
São Paulo	144.585	42,9%
Santa Catarina	43.868	13,0%
Rio Grande do Sul	28.587	8,5%
Paraná	26.113	7,8%
Minas Gerais	21.909	6,5%
Rio de Janeiro	12.640	3,8%
Pernambuco	10.792	3,2%
Bahia	10.719	3,2%
Amazonas	9.022	2,7%
Goiás	5.228	1,6%
Ceará	4.522	1,3%
Alagoas	3.756	1,1%
Paraíba	3.124	0,9%
Espírito Santo	2.645	0,8%
Mato Grosso do Sul	2.003	0,6%
Rio Grande do Norte	1.718	0,5%
Mato Grosso	1.662	0,5%
Pará	1.080	0,3%
Sergipe	858	0,3%
Distrito Federal	548	0,2%
Maranhão	496	0,1%
Piauí	354	0,1%
Rondônia	312	0,1%
Tocantins	105	0,0%
Acre	101	0,0%
Roraima	1	0,0%
BRASIL	336.748	100%

Sources: RAIS, Caged/Ministry of Economy

ECONOMY IMPACTS OF THE SECTOR

For each BRL 1 million worth of additional production in the processed plastics sector

- The processed plastics sector generates 29 new jobs.
- The total production adds BRL 3.35 million to the economy
- BRL 1,3 million increase in the Brazilian GDP

Jobs (2021): **336.748**

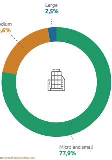
Companies (2020): **11.032**

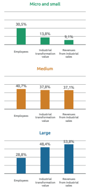
Revenues (2021): **R$ 127,5 bilhões**

Physical production (2021): **7,1 milhões de toneladas**

Sources: Monthly Industrial Survey – Physical Production and Annual Industrial Survey – Company and Product and Table of Resources and Uses and Input Matrix Product /IBGE.
Prepared by: ABIPLAST

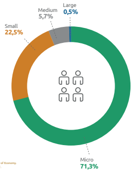
DISTRIBUTION OF COMPANIES BY REVENUES (2019)





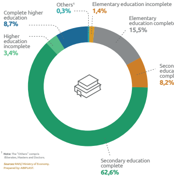
Source: Annual Industrial Survey - Company, special extraction / IBGE. Prepared by: ABIPLAST.

DISTRIBUTION OF COMPANIES BY STAFF HIRED (2021)



Sources: RAIS/ Ministry of Economy.
Prepared by: ABIPLAST.

EDUCATIONAL LEVEL IN THE PROCESSED PLASTICS SECTOR (2020)



[1] **Note:** The "Others" compris illiterates, Masters and Doctors.

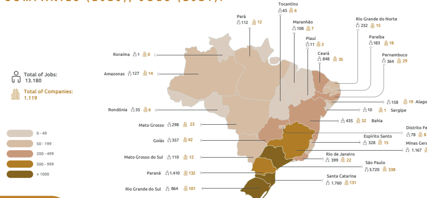
Sources: RAIS/ Ministry of Economy.
Prepared by: ABIPLAST.

THE PLASTIC MATERIAL RECYCLING INDUSTRY IN BRAZIL

LOCATION OF COMPANIES AND JOBS OF THE PLASTIC MATERIAL RECYCLING SECTOR, BY STATE. COMPANIES (2020), JOBS (2021).

Total of Jobs: 13.180

Total of Companies: 1.119



Source: RAIS, Caged/ Ministry of Economy. Prepared by: ABIPLAST.

DISTRIBUTION OF COMPANIES AND JOBS OF THE PLASTIC RECYCLING SECTOR, BY STATE

COMPANIES

State	Companies 2020	Participation on Brazil (%)
São Paulo	338	30,2%
Paraná	132	11,8%
Santa Catarina	131	11,7%
Rio Grande do Sul	101	9,0%
Minas Gerais	98	8,8%
Goiás	42	3,8%
Ceará	35	3,1%
Bahia	32	2,9%
Pernambuco	29	2,6%
Mato Grosso	23	2,1%
Rio de Janeiro	22	2,0%
Alagoas	19	1,7%
Paraíba	18	1,6%
Rio Grande do Norte	15	1,3%
Espírito Santo	15	1,3%
Amazonas	14	1,3%
Pará	12	1,1%
Mato Grosso do Sul	12	1,1%
Distrito Federal	8	0,7%
Maranhão	7	0,6%
Rondônia	6	0,5%
Tocantins	6	0,5%
Piauí	3	0,3%
Sergipe	1	0,1%
BRASIL	1.119	100%

JOBS

State	Jobs 2021	Participation on Brazil (%)
São Paulo	3.720	28,2%
Santa Catarina	1.760	13,4%
Paraná	1.410	10,7%
Minas Gerais	1.167	8,9%
Rio Grande do Sul	864	6,6%
Ceará	848	6,4%
Bahia	435	3,3%
Rio de Janeiro	399	3,0%
Pernambuco	364	2,8%
Goiás	357	2,7%
Espírito Santo	328	2,5%
Mato Grosso	298	2,3%
Rio Grande do Norte	232	1,8%
Paraíba	183	1,4%
Alagoas	158	1,2%
Amazonas	127	1,0%
Pará	112	0,8%
Mato Grosso do Sul	110	0,8%
Maranhão	108	0,8%
Distrito Federal	78	0,6%
Tocantins	65	0,5%
Rondônia	35	0,3%
Piauí	11	0,1%
Sergipe	10	0,1%
Roraima	1	0,0%
BRASIL	13.180	100%

Source: RAIS/ Caged - Ministry of Economy

FLOW OF MECHANICAL RECYCLING OF PLASTICS MATERIALS

Jobs (2021): ***13.180***

Companies (2020): ***1.119***

Physical production of post-consumer resin (2020): ***884.4 thousand tons***

Revenues of post-consumer recycling (2020): ***BRL 3,1 billion***

Sources: RAIS, Caged / Ministry of Economy, MaxiQuim/ PICPlast Recycling Survey and Braskem Report 2015.

Each 1 ton of recycled material produced:

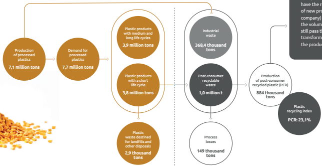
- Reduces on average 1,1 ton of plastic waste left in landfills;
- Employs 3,16 waste pickers to collect this volume of material every month.

Fontes: IPEA 2010, Associados ABIPLAST e Relatório Braskem 2016. Elaboração: ABIPLAST.

MECHANICAL RECYCLING POST-CONSUMER PLASTIC MECHANICS IN BRAZIL (2020)

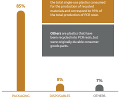
The data presented in this section are from the MaxiQuim Recycling Survey, requested by PICPlast.
This section included the elaboration of ABIPLAST.

Of the **884 thousand tons** of recycled post-consumer plastic resin, verticalized recyclers (who have the recycling and production of new products in the same company) transform about 30% of the volume and the remaining 70% still pass through the transformation industry plastic for the production of new products.



PRODUCTION OF POST-CONSUMER RECYCLED PLASTIC (PCR) IN 2020

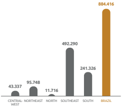
By origin



Packaging and disposables make up the total single-use plastics consumed for the production of recycled materials and correspond to 93% of the total production of PCR resin.

Others are plastics that have been recycled into PCR resin, but were originally durable consumer goods parts.

By Brazilian region



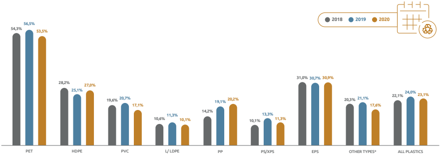
*Values in tons

Production of Post-Consumer Recycled Plastic (PCR)

884 thousand tons

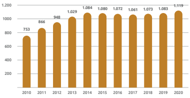
HISTORY OF THE POST-CONSUMER PLASTIC RECYCLING (PCR) INDEX

By type of plastic material



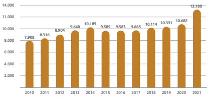
*Other types include ABS, PC, POM, PBT, PA, PU, SAN.

PLASTIC MATERIAL RECYCLING COMPANIES IN BRAZIL



Source: RAIS/ Ministry of Economy.

JOBS IN THE PLASTIC MATERIAL RECYCLING INDUSTRY IN BRAZIL



Sources: RAIS and Caged/ Ministry of Economy.

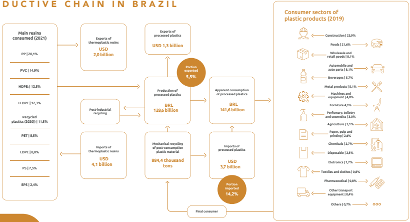
HOW TO IDENTIFY THE TYPES OF MATERIALS IN PLASTIC PRODUCTS?

1 - Poly (ethylene terephthalate)
2 - High density polyethylene
3 - Poly (vinyl chloride)
4 - Low density polyethylene
5 - Polypropylene
6 - Polystyrene
7 - Others

Source: ABNT NBR 13230 - Plastics packaging recyclable - Identification and Symbology.

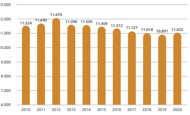
PERFORMANCE OF BRAZILIAN PROCESSED PLASTIC INDUSTRY

SUMMARY OF THE PLASTIC PRODUCTIVE CHAIN IN BRAZIL



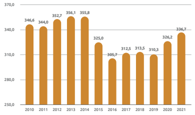
Sources: Comexstat/ Ministry of Economy, Monthly Industrial Survey - Physical Production, Annual Industrial Survey – Company, Table of Uses of Goods and Services / IBGE, MaxiQuim / PICPlast Recycling Survey. Prepared by ABIPLAST.

COMPANIES IN THE PROCESSED PLASTICS SECTOR



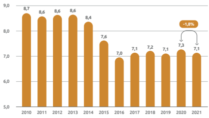
Source: RAIS/ Ministry of Economy.

JOBS IN THE PROCESSED PLASTICS SECTOR (IN THOUSAND JOBS)



Sources: RAIS and Caged/ Ministry of Economy.

PRODUCTION OF PROCESSED PLASTICS (IN MILLION TONS)

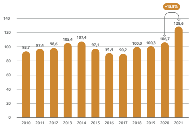


Despite the good prospects for 2021 at the beginning of that year, mainly due to the start of vaccination against covid-19, the plastic processed products industry lost strenght over the months, especially from the second half of 2021.

The sector registered a retraction of (-1,8%) compared to 2020. Given the 2,4% growth of the sector in 2020, it is clear that part of the significant growth presented between the second and third quarter of that year was offset in 2021.

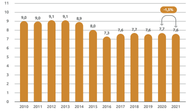
Sources: Annual Industrial Survey - Product, Monthly Industrial Survey - Physical Production/ IBGE, RAIS, Caged/ Ministry of Economy. Prepared by: ABIPLAST

PRODUCTION OF PROCESSED PLASTICS (IN BRL BILLION AT CURRENT 2021 PRICES)



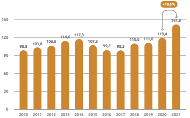
Source: Annual Industrial Survey - Company/ IBGE. Prepared by: ABIPLAST.

APPARENT CONSUMPTION OF PROCESSED PLASTICS (IN MILLION TONS)



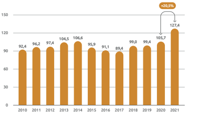
Sources: Annual Industrial Survey - Product, Monthly Industrial Survey - Physical Production/ IBGE, Comexstat/ Ministry of Economy. Prepared by: ABIPLAST.

APPARENT CONSUMPTION OF PROCESSED PLASTICS (IN BRL BILLION AT CURRENT 2021 PRICES)



Sources: Annual Industrial Survey - Company and Monthly Industrial Survey - Physical Production and IPP-BP/ IBGE and Comexstat/ Ministry of Economy. Prepared by: ABIPLAST.

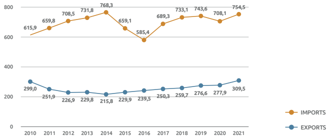
REVENUES OF PROCESSED PLASTICS (IN BRL BILLION AT CURRENT 2021 PRICES)



The significant advance between 2020 and 2021 in the sector's revenue is a reflection of the high inflation and the rise in raw materials prices over these years.

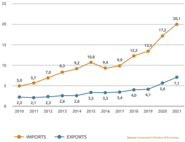
Sources: Annual Industrial Survey - Company, Monthly Industrial Survey - Physical Production and IPP-BP/ IBGE. Prepared by: ABIPLAST.

PROCESSED PLASTICS EXPORTS AND IMPORTS (IN THOUSAND TONS)

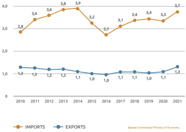


Source: Comexstat/ Ministry of Economy.

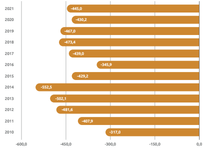
PROCESSED PLASTICS EXPORTS AND IMPORTS (NOMINAL IN BRL BILLION)



PROCESSED PLASTICS EXPORTS AND IMPORTS (NOMINAL IN USD BILLION)

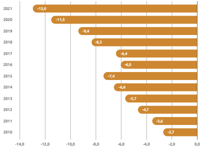


COMMERCIAL BALANCE OF PROCESSED PLASTICS (IN THOUSAND TONS)



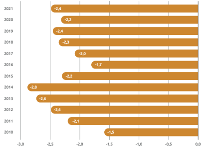
Source: Comexstat/ Ministry of Economy.

COMMERCIAL BALANCE OF PROCESSED PLASTIC (NOMINAL IN BRL BILLION)



Source: Comexstat/ Ministry of Economy.

COMMERCIAL BALANCE OF PROCESSED PLASTIC (NOMINAL IN USD BILLION)



Source: Comexstat/ Ministry of Economy.

MAIN DESTINATIONS OF EXPORTS OF PROCESSED PLASTICS

EXPORTS

Country	Quantity in tons	% t	USD thousand	% USD
Argentina	73.784	23,8%	314.370	24,0%
United States	42.049	13,6%	184.647	14,1%
Paraguay	33.101	10,7%	123.447	9,4%
Chile	31.553	10,2%	124.873	9,5%
Uruguay	21.995	7,1%	79.915	6,1%
Colombia	19.988	6,5%	92.058	7,0%
Mexico	15.250	4,9%	73.066	5,6%
Bolivia	10.536	3,4%	43.867	3,3%
Spain	9.976	3,2%	18.174	1,4%
Peru	7.011	2,3%	36.407	2,8%
Ecuador	3.755	1,2%	20.788	1,6%
Guatemala	3.456	1,1%	10.834	0,8%
Germany	2.627	0,8%	14.629	1,1%
Dominican Republic	2.293	0,7%	8.175	0,6%
Costa Rica	2.249	0,7%	9.919	0,8%
Canada	1.821	0,6%	7.454	0,6%
Others	28.042	9,1%	147.972	11,3%
2021	309.484	100%	1.310.595	100%

Source: Comexstat/ Ministry of Economy.

MAIN ORIGINS OF IMPORTS OF PROCESSED PLASTICS

IMPORTS

Country	Quantity in tons	% t	USD thousand	% USD
China	345.494	45,8%	1.214.264	32,7%
United States	42.976	5,7%	455.762	12,3%
India	37.260	4,9%	101.571	2,7%
Germany	23.872	3,2%	242.404	6,5%
South Korea	23.841	3,2%	97.688	2,6%
Paraguay	20.503	2,7%	75.210	2,0%
Argentina	18.838	2,5%	78.384	2,1%
Italy	18.133	2,4%	153.164	4,1%
Israel	16.259	2,2%	68.832	1,9%
Peru	15.597	2,1%	35.887	1,0%
Chile	14.162	1,9%	54.690	1,5%
Vietnam	12.326	1,6%	42.717	1,1%
Taiwan (Formosa)	11.652	1,5%	47.212	1,3%
Mexico	11.448	1,5%	86.654	2,3%
France	11.071	1,5%	104.871	2,8%
Colombia	10.943	1,5%	36.605	1,0%
Others	120.099	15,9%	820.518	22,1%
2021	754.474	100%	3.716.135	100%

Source: Comexstat/ Ministry of Economy.

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Associação Brasileira da Indústria do Plástico

2019 | 2023

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GLOSSARY

ABDI - Brazilian Agency for Industrial Development;
ABIPLAST - Brazilian Association of the Plastic Industry;
ABNT - Brazilian Association of Technical Standards;
ABS - Acrylonitrite-Butadiene-Styrene;
CAGED - General Register of Working and Unemployed Citizens;
CNRPLAS - National Chamber of Plastic Material Recyclers;
COMEXSTAT - Foreign Trade Statistics;
COFABI - Sectorial Chamber of Industrial Plastic Bucket Manufacturers;
EPS - Expanded polystyrene;
EUA - United State of America;
EVA - Ethylene - Vinyl - Acetate;
IBGE - Brazilian Institute of Geography and Statistics;
IPEA - Institute of Applied Economic Research;
NAFTA - North American Free Trade Agreement;
NBR - Regulatory Brazilian Standard;
PA - Polyamide;
PC - Polycarbonate;
PCR - Post-consumer recycled resin;
HDPE - High density polyethylene;
LCA - Life Cycle Assessment;
LDPE - Low density polyethylene;
LLDPE - Linear low density polyethylene;
PET - Poly (ethylene terephthalate);
PBT - Poly (butylene terephthalate);
PNRS - National Solid Waste Policy;
PICPlast - Plastic Chain Incentive Plan;
POM - Polyoxymethylene;
PP - Polypropylene;
PPO - Polyxyphenylene;
PS - Polystyrene;
PSU - Polissulfona| Polysulfone;
PTFE - Polytetrafluoroethylene;
PU - Polyurethane;
PVC - Poly (vinyl chloride);
RAIS - Annual List of Social Information;
RAS - Annual Sustainability Report;
RDC - Resolution of the Collegiate Board;
RSU - Urban Solid Waste;
SENAPLAS - National Seal of Recycled Plastics.

PERFIL

2021

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