

# Rotoplas. Involvement in development

VALUE TRANSFER

## Quality (102-9, 102-43, 203-2, 204-1, 301-2, 416-1, 417-1)

Grupo Rotoplas is committed with the quality of its products and services, in order to achieve full customer's and user's satisfaction. We work according to our Quality Policy, providing a portfolio of best guarantee which also complies with several standards and certifications of the countries in which we operate.

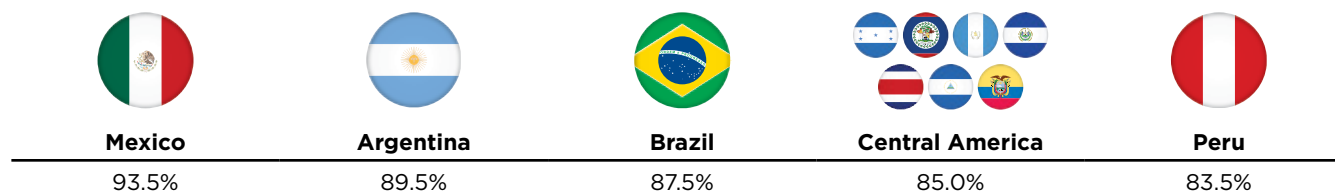
Our plants have quality management systems designed in accordance with ISO 9001 standard, those located in Mexico, Guatemala, and Peru are certified; however, our plants in Argentina and Brazil operate according to ISO 9001 standard requirements. In addition, our products meet certain standards, considering also particular requirements that customers may have, following the proper tests and specifications.

For the monitoring of compliance with our policies and guidelines, as well as of the requirements of the rules and standards applied to management and products, we carried out internal audits coordinated by the Quality Department, as well as other external audits by third-parties.

The **Rotoplas** trademark is historically known because of its quality and trustworthiness, result of our continuous efforts. We truly inform product specifications to our customers in order that they can make their best decision. In addition, we have guidelines in regarding marketing, ensuring that messages are clear and relevant to the needs of the segment to which they are addressed.

The Company cares about the **customers' and users'** satisfaction of our solutions, which we monitor twice a year via survey. Our Customer Assistance Center (CAC) is responsible for its application in order to monitor satisfaction of the products or services provided, their recommendation and the repurchase probability. The satisfaction of our products is above 83% in all markets in which we operate, and the recommendation exceeds 95%.

### CUSTOMERS' SATISFACTION – 2016<sup>4</sup>



# 98.5%

OF RECOMMENDATION  
IN MEXICO

# 96.0%

OF RECOMMENDATION  
IN BRAZIL

<sup>4</sup> Customer's satisfaction is assessed on a scale of 1 to 10, in which 1 is the minimum score and 10 the highest. The percentage of satisfied customers ranges from 7 to 10 for both semesters of 2016.

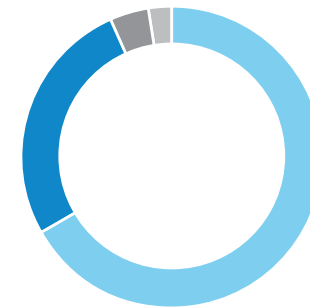
The emphasis on quality that we put into our products is extended also to our **supply chain**, as it is related with the characteristics of raw materials that we use. We mainly use resins, but also other materials on a smaller scale. In the case of some solutions we are also incorporating already-made components, in which there is a strict quality control. This evaluation and monitoring is also present in the provision of services, when we involve third parties, for example, in the installation and/or maintenance of our solutions.

In 2016, we assigned \$3,371.9 million pesos to suppliers, a 6.5% less than the previous year, due to the variation in volumes and composition of our portfolio sales, which conditioned manufacturing through demand planning and inventory management.

51% of the supply expenditure was focused on the following main categories of materials and services.



### Expense in main suppliers - 2016



● Materials	<b>66.9%</b>
● Services	<b>26.7%</b>
● Equipment	<b>3.9%</b>
● Other	<b>2.5%</b>



We are committed to local supply, which is completed with a business model that encourages manufacturing near target markets, in order to reduce the transportation due to the volume occupied by many of our solutions. 68.7% of expenditure was for local suppliers, aligned with 2015.

In addition to our emphasis on quality, we are looking to work with alternative materials with lower impact on the environment. In this regard, it is worth mentioning that most of the resins used are polyethylene and polypropylene, less polluting than other plastics in their manufacturing process. In the case of polyethylene terephthalate (PET) used in biodigesters, it is 100% recycled.

We reuse the plastic waste from our rotomolding processes, which is incorporated back into the process guaranteeing the safety and quality of the final product; these plastics constitute 30% of the material of the intermediate layer of the three-layer storage tanks.

We work closely with our suppliers to promote innovation that characterizes our solutions, both in terms of materials and components. We therefore contribute to their development through commercial relations and innovations they incorporate in their production.

In addition, we develop training programs particularly for suppliers that provide installation and maintenance services. It is the case of our Plumbers' program that trains and certifies them in the installation of hydraulic solutions, supporting professionalization and gender equity in the sector. We also have the Promoting a Profession initiative that trains college students and students from technical careers in the installation, management and operation of our solutions.



## Water culture (102-12)

Recognized since 2010 by the United Nations as a human right, **access to drinking water and sanitation should also be continuous and sufficient for personal and domestic use**, according to provisions of the multilateral organization. The World Health Organization (WHO) estimates that between 50 and 100 liters of water per person per day are necessary to cover basic needs and prevent major health threats. In Latin America, we face a complex hydrological reality due to the degradation and over-exploitation of water sources and the increasing incidence of climate change effects, which makes the supply of quality water, in sufficient amounts, a challenge.

There is also **little valuing of water as a public resource, a responsible use and no preservation of its quality**, which drives the need for a collective culture in this regard, in which appropriate governmental institutions, the private sector and the civil society are involved. In Grupo Rotoplas we pursue to promote different **awareness** activities, acknowledging our responsibility to do so and according to the transformation approach which we also show in our products and services.

Due to our strong presence in Mexico and Brazil, these countries have been benefited with the development of initiatives to **raise awareness about responsible use of water**. For their success and incredible

reach, the **“Água cuidado porque amo”** (I care for water because love it) and **“Fan del agua”** (Water Fan) campaigns, turned into permanent platforms for the community, whose content is reinforced and have a life of their own through all those who participate in them. On the other hand, this year we launched the initiative **“La canción más larga”** (The longest song) in Mexico, with the purpose of saving water during shower time, and we deliver this water volume to a vulnerable community. The success of participants allowed the **donation of 30,000 liters of water** to the Miravalle community, in Mexico City, accompanied by sessions and workshops on how to use water in a responsible way. On the occasion of the World Water Day, in which we take part every year in 2016, we created the **“Movimiento In”** (In movement) in Mexico, which is an initiative that takes action around 3 topics regarding the importance of water and its rational use: development and screening of a documentary, a survey to citizens about their habits of consumption, production and delivery of training materials.

<sup>5</sup> [www.fandelagua.com](http://www.fandelagua.com)  
[www.acqualimp.com/agua-cuido-porque-amo/](http://www.acqualimp.com/agua-cuido-porque-amo/)



Fan del agua (Water fan)

**+50,000**

VISITS PER YEAR



COMMUNITY OF FOLLOWERS ON  
FACEBOOK AND TWITTER.

**We share tips and educational content for water care, and promote the involvement of users by encouraging them to calculate their water footprint and start saving it.**

Being aware that **the change in culture comes with the new generations**, we established an alliance with the *Papalote Museo del Niño* (Children's Museum) in Mexico City, to develop an interactive exhibition of the water cycle, which will invite visitors to purify, deliver, store and reuse water, and will continue to be available in 2017. We also worked with elementary school students in order to raise awareness about the use of water through the "*Cuidado del Agua*" (Water Care) program as well as in Universities, giving conferences about the global water situation, water awareness and new technologies. In this regard, we gave continuity to the MER (Meyer-Edify-Rotoplas) contest, in which future generations of architects of the UNAM must reflect and propose their projects on topics that promote innovation in terms of water and sustainable housing.

We also took part of collective initiatives that create a new water culture, as the Water advisory council<sup>6</sup>, in which we chair the Committee on Culture and Sustainable Water Use.

<sup>6</sup> An NGO that pursues to create bounds between the spheres of public administrations, enterprises and other organizations, and promote best practices in the management and use of water.

## Operational efficiency (102-9, 302-1, 302-3, 302-4, 303-1, 303-3, 305-1, 305-2, 305-4, 305-5, 306-2)

In Grupo Rotoplas we perform in accordance with **processes**, through a working methodology that starts from their identification and mapping, to their subsequently promotion to be adopted by the employees. Their implementation facilitates coordination in the development of activities, greater operational efficiency and reducing costs, looking for a continuous **improvement**. It is part of the Rotoplas Way, which also constitutes the way in which we understand how to implement the organizational culture.

With this approach, the **operational flow to produce the products in our portfolio** proceeds, from the selection and supply of raw materials, to the commercialization of the resulting solution.

The proper **demand planning** is essential; the sale estimates for the following months and our capabilities in terms of machinery and input are considered. The next step is the preparation of a **production plan**, in order to assign the activities between the different plants and set terms and timings. As the products are being released, their **distribution** is being coordinated, according to the customers' requirements and on-hand inventory, coordinating their transport by third parties.

We pursue to be efficient in the use of resources, including energy, as well as to reduce emissions and waste generation, adopting reuse schemes through the different stages. Regarding production, we monitor our different plants to identify good practices and replicate them all.

It is worth mentioning that we have an environmental management systems according to ISO 14001 in four of our plants in Mexico and Peru<sup>7</sup>, although the others operate according to the standard's guidelines. We plan to continue certifying the other plants until we complete all our operation sites in the coming years.

Regarding our energy consumption, it is mainly concentrated in the extrusion and milling, injection and rotomolding processes. We require electricity, as well as liquefied petroleum gas (LPG) and natural gas, looking for a more efficient consumption, for its lower emissions related to Greenhouse Gases (GHG).

### Energy consumption 2016- Main processes

Process	Source	Consumption (kWh)
Extrusion and milling Injection	Electricity	32,200,953
Rotomolding	Natural gas	113,228,799
	LPG	
	Electricity	

<sup>7</sup> We have environmental management systems certified according to ISO 14001 in our plants in Lerma, State of Mexico, León, Guanajuato, and Lima (Peru).

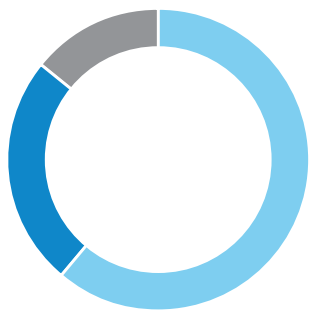
We are working on the implementation of measures that will allow us to have a more efficient energy consumption, especially in the redesign of gas-burner systems for our rotomolding machines, which allow us a reduction of 5% in energy demand and 12% in the generation of Greenhouse Gases (GHGs). With all this, the energy intensity in the manufacturing processes was of 2,159 kWh per ton of processed plastic material<sup>8</sup>. In addition, we are committed to the use of renewable resources and our energy supply comes from wind energy for extrusion, milling and injection processes, which represents the 86.0% of total electricity used for production<sup>9</sup>.

**86%**

**OF TOTAL ELECTRICITY USED FOR PRODUCTION COMES FROM RENEWABLE WIND ENERGY.**

GHGs emissions related to the Company's operations are mainly due to the energy we need. Whereas the consumption of electricity, natural gas and LPG, the figure is 36,371 tons of CO<sub>2</sub>e, that in terms of intensity compared to production is 0.52 tons of CO<sub>2</sub>e per ton of processed plastic material.

**Energy consumption 2016 - Main processes**



● Natural gas	<b>61.2%</b>
● Electricity	<b>24.9%</b>
● LPG	<b>14.0%</b>

**GHGs Emissions 2016<sup>10</sup> (tons of CO<sub>2</sub>e)**

Consumption of fuels (natural gas and LPG) (Scope 1)	21,954
Electricity consumption (Scope 2)	14,417

**Energy consumption 2016 - Main processes**

Source	Annual Consumption (kWh)
Electricity	37,447,647
Natural gas	92,142,125
LPG	21,086,673



<sup>8</sup> Contemplate the energy consumption of extrusion and milling, injection and rotomolding processes.

<sup>9</sup> Total of electricity consumption related to more demanding processes: extrusion and milling, injection and rotomolding processes.

<sup>10</sup> Contemplate only the energy consumption of extrusion and milling, injection and rotomolding processes.





In addition, we work with our transport suppliers for greater efficiency in the process, especially in the redesign of the cages to be able to increase the number of products in each transport unit and, thus, reduce the GHG emissions related to the distribution of our solutions.

We apply our approach on operational efficiency also to the use of materials and waste generation. We reuse plastics resulting in obsoletes and scraps from the manufacturing processes. However, we generate another series of waste, as non-hazardous waste.

## Waste 2016

Category	Quantity (kg)
Hazardous	48,697
Hazardous and of special handling	147,000
Urban solid	251,000
Non-hazardous	411,127

We separate the waste in our plants, complying with their storage conditions, all according to our internal management procedures of hazardous chemical substances, segregation, and other which constitute the environmental management system. Subsequently, they are delivered to companies authorized to transport and treat them. Thus, hazardous wastes are deposited in regulated safe landfills. We seek for reutilization opportunities for non-hazardous wastes by giving them to companies who are responsible for recycling.

We are a company focused on water, in the provision of solutions to facilitate its access and quality. Although we don't have highly water demanding processes, we work to optimize our use, as part of the commitment of a culture of rational use of water. In 2016, we used 75,538,000 liters, of which we then reuse the 26.7%. In order to increase this percentage, we worked during the year in the development of a recirculation system for the rotomolding process that allows us to reuse the remaining water (not evaporated) after the cooling phase of the product in the mold. This system will start to operate in some of our plants in 2017.

**WE REUSE THE**

**26.7%**

**OF THE WATER FROM OUR  
PRODUCTION PROCESS.**