



Instituto
Nacional
de Tecnología
Industrial

36th EDITION | 2024



SMEs EXPORT

Argentine technology and innovation



RUBBER



INSTITUTIONAL RELATIONS AND COMMUNICATIONS OPERATIONAL MANAGEMENT

Institutional Relations Deputy Management



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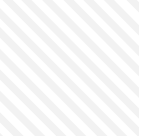


Introduction

In this edition we are presenting experiences in the assistance to industrial SMEs in the rubber and adhesives sector.

Our center specialized in Rubber is integrated by professionals with a wide experience in the field and has physical and chemical testing laboratories and a pilot plant, through which we provide technical assistance, quality control and technology transfer in response to the needs of the sector. We also promote the training of technicians and professionals from companies producing or using rubber products, adhesives and sealants.

We are a reference laboratory for the certification of materials and products, we are linked with SMEs, associations, public and private organizations in order to promote the development of new materials.



GRIFFO S.R.L.



Universal transmission bellows for the automotive sector



In the competitive world of the automotive industry, every detail matters. From the engine to the tires, every component must be manufactured with precision and quality. One of the most important, but often overlooked elements are the rubber bellows. These parts play a crucial role in protecting the internal mechanisms of vehicles, keeping out dust, moisture and other harmful agents.

Griffo S.R.L. has been manufacturing this product for more than 40 years and is the reference trademark in Argentina.

Specialized in the manufacture of transmission, suspension and steering bellows in nitrile rubber for the automotive aftermarket, its strength is the production of universal transmission bellows. In the world there are vehicle fleets that need specific bellows, and these have the advantage of adapting to any type of vehicle, making it their most demanded product.



According to an analysis by “Expert Reports”, the natural rubber market reached a value of USD 30.61 billion in 2022. During the forecast period 2023-2028, the market is anticipated to grow at a compound annual growth rate of 3.5%.

Source: www.informesdeexpertos.com/

Marcelo Peleretegui, technician in charge of the Processes, Development of New Compounds and Formulations sector of INTI-Rubber, comments that the institute accompanies and assists the company since its inception in many aspects, such as improving a process, any product-characteristic, a feature both technical and developmental, physical tests, controls and characterization of mixtures, optimization of its formulations or improvement in properties for a particular piece.

“No other laboratory can offer me the comprehensive support of INTI-Rubber center. All their experience allows us to obtain adequate answers in short times and with high quality, which is essential in the search for product placement in the market”, says José Griffo, general manager of the company.



The global bellows market is expected to grow at a compound annual growth rate of 6.20% from 2022 to 2029, reaching US\$615.4 million in 2029 from US\$358.2 million in 2020.

Source: Exactitude Consultancy

With more than 20 years of experience exporting to countries such as Brazil and Uruguay, due to the logistics of volume and transportation costs, Griffo wishes to diversify its international presence in the rest of Argentina’s neighboring countries.

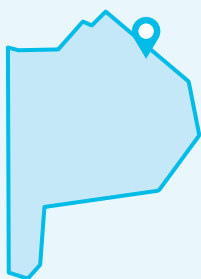
The differentiating feature of the universal bellows is that they save a lot of time during installation, an important aspect in the replacement market. “The mechanic performs the service in a short time and the product fulfills its function, sealing in perfect conditions. It meets the needs of the vehicle and the mechanic’s installation”, explains José Griffo.

The Griffo trademark has a great positioning, it is a reference for quality and innovation in the automotive aftermarket in the country. In 2001, Griffo developed universal clamps to adjust the bellows, being the first in the national market to commercialize them. Its latest breakthrough is a universal steering bellows that is installed manually and does not require vehicle alignment, which saves both mechanical and user time.





Griffo's most important challenge was to position their brand in the national market. "We were able to change the mentality about the product because before it was very costly and laborious to change a vehicle's bellows and it was only done in a corrective way. Now, with this easy assembly, the mechanic changes the bellows in a preventive manner. We are a reference in strengthening the market in Argentina, and we know that we can do it in the world, where there are only 10 companies that manufacture universal bellows", concludes José Griffo.

**GRIFFO S.R.L.****Villa Madero, La Matanza, Buenos Aires***Molded rubber parts factory*

-Annual production capacity: 2 million units

-Production plant: 2,000 m²**• HS CODE (NCM):**

-4016.99.90.339K / Other articles of vulcanized rubber without hardening.



TACSA-TECNOLOGÍA ARGENTINA EN CINTAS S.A.



Insulating tapes and adhesives for all types of surfaces



In various sectors such as construction, electronics, automotive and manufacturing, adhesives and insulating tapes play a key role in the quality and safety of end products, providing practical, affordable and efficient solutions. The right choice can make the difference between a strong, durable bond or a failure that jeopardizes the function of an object or the integrity of a structure. Therefore, it is important to know the different options available in the market and to choose the most suitable product for each situation.

TACSA is a leading company in the Argentine market with more than 35 years of experience in the manufacture and marketing of insulating tapes. Its products satisfy the electrical, hardware and automotive markets. They consist of PVC insulating tapes for electrical and industrial use; EPR (ethylene propylene rubber) self-welding tapes for high and low voltage as well as double contact adhesives for general use (footwear, textile) and vinyl adhesives for the wood industry and general use.

Daniela García, a member of the technical assistance and liaison team of the Rubber Center, says that the company has a long history working with the National Institute of Industrial Technology (INTI), which provided support in training processes for quality control of semi-finished products and formulation of contact adhesives.



In addition to providing laboratory services, **the company worked on improving the properties of contact adhesives and on the development of a toluene-free adhesive to significantly reduce its toxicity.**



The properties of natural rubber, such as high tensile strength, vibration damping and tear resistance, make it ideal and more preferred than synthetic rubber for application in the automotive industry and large constructions.

Source: www.mordorintelligence.com/

Miguel Reznik, head of INTI's Chemical and Industrial Products Department, says that **the National Register of Chemical Precursors (RENPRE) controls any transaction with authorized chemical substances whose characteristics or components could serve as a base or be used to make narcotics and chemical precursors.** For this reason, the company turned to the Institute to obtain a technical report (according to Law No. 26,045 of the National Registry of Chemical Precursors), to prove that the precursors of its adhesives are difficult to recover and therefore could not be used for the synthesis of illicit drugs.

According to Ariel Matiazzo, director of TACSA, INTI is a strategic technical partner for the company. Its presence is crucial, as its experts have the necessary experience and knowledge to develop products adapted to market requirements.

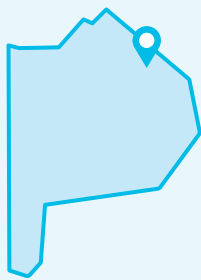
PVC insulating tape is the company's most demanded product. It is highly demanded in the electrical sector in Latin America due to its resistance and flexibility. Unlike other insulating tapes, this one adapts perfectly to irregular surfaces, avoiding peeling or lifting over time.

Certified by RINA in the ISO 9001:2015 Quality Management Standard, IRAM 169/18 and RETIE certification (Technical Regulations for Electrical Installations) adopted by Colombia, it is the only Argentine company that produces and exports PVC and self-welding insulating tapes; and it is within the in-plant customs regime. **"We are a country with a brand value because our tape is recognized as 'the Argentinean tape' in the destination countries",** says Ariel Matiazzo.



Although the company has extensive experience in exports, mainly to Brazil, Chile, Colombia, Costa Rica, Ecuador, Paraguay, Peru and Uruguay, **it is interested in entering the Mexican and Caribbean markets, where it has detected significant demand.**

“We guarantee continuity even in adverse situations and we have a great capacity to adapt to market changes in terms of demand and product adaptation, something that distinguishes us throughout the Latin American region. Our history and track record prove it”, concludes Matiazzo.



TACSA - Tecnología Argentina en Cintas S.A.

Hurlingham, Buenos Aires

Manufacture and commercialization of insulating tapes.

-Production capacity: Installed (insulating tapes): 6,750,000 m² equivalent to 35,500,000 rolls of 19mm x 10m / year. Adhesives: 1,500 Tn / year.

-Industrial Plant: 2,000 m². Warehouses: 3,200 m² Administration: 800 m².

• HS CODE (NCM):

-3919.10.20 / PVC insulating tapes.

-4005.91.90 / self-welding tapes of rubber

-3506.10.90 / Double contact adhesives



GLOVEX S.A.



Dielectric gloves: safety in the right hands

Personal safety is of utmost importance, especially when working around high-voltage electrical installations. **Dielectric gloves are one of the fundamental elements in the safety of electrical professionals. These gloves protect workers against electrical hazards and minimize the danger of shock or electrocution.** In this sector where safety is paramount, the manufacture and use of dielectric gloves has become regulatory.

Glovex S.A., a trademark with more than 40 years in the market, is a pioneer in the country in the manufacture of dielectric gloves made of natural rubber from Vietnam.

There are six glove-classes in its offer, identified by a number 00, 0, 1, 1, 2, 3 and 4. The code identifies the thickness of each glove that allows working with different electrical voltages. Code 00 is the most demanded due to its wide range of applications, including maintenance of electrical and telephone networks.

Manufacturing dielectric gloves involves the use of high-fidelity materials, such as natural rubber, which resists electricity and is capable of withstanding high voltages.



Andrés Rosalin, president of the company, **highlights the superior properties of natural rubber gloves compared to latex gloves**, which have greater maneuverability and constant durability over the years.

Glovex S.A. is the only company in Argentina that manufactures this type of rubber products, and regionally there are only three other companies, located in Brazil and the United States. “This is precisely why the demand is unsatisfied and there is an important business potential”, says Rosalin.



Increasing applications of natural rubber is raising the demand for production, which led the harvested area to grow by more than 700,000 hectares globally during 2018-2021. Growing demand from developing countries in line with increasing global production is expected to drive the market for this material.

Source: www.mordorintelligence.com/



Marcelo Peleretegui, technician in charge of the Processes, New Compound Developments and Formulations of the Rubber Industry at the National Institute of Industrial Technology (INTI), has assisted the company in multiple aspects, including the improvement of the product's dielectric properties in accordance with regulations. Laboratory mixtures and controls were performed, training was provided, and plant diagnostic visits were conducted to identify opportunities for innovation.

“INTI helped us to improve not only product quality, but also to develop the ability to detect deviations in production, thus avoiding potential problems in production and achieving standardization of the final quality of the material. Today, we continue to work constantly with the center, laying the foundations for solid local and regional growth”, says Rosalin.

Glovex S.A. has IRAM 3604/2010 certification for its dielectric gloves, equivalent to U.S. ASTM-D-120 and European Union IEC-60903 standards. **In addition to its presence in Uruguay and Paraguay, the company is interested in entering Latin and Central American markets based on existing demand.**

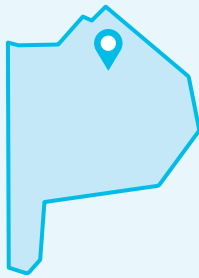


“We are differentiated by a long history of being a benchmark in the segment, commitment to the customer and a constantly evolving R&D department, which guarantees the quality of our products”, concludes Rosalin.



According to data provided by the Economic Complexity Observatory (OEC), in 2021 natural rubber in other forms was the 1626th most traded product in the world (out of a total of 4,641).

The importance of proper dielectric gloves cannot be underestimated. Electrical professionals face high-risk situations on a daily basis, where the slightest carelessness can have fatal consequences. Therefore, **investing in the use of dielectric gloves is a priority for companies around the world.**



GLOVEX S.A.

Navarro, Buenos Aires

Manufacture of vulcanized rubber dielectric gloves.

- Annual production capacity: 50,000 pairs
- Production plant: 800 m²

• HS CODE (NCM):

-4015.19.00.990Y / Other Gloves, mittens and mitts: Garments, gloves, mittens and mitts and other clothing accessories (accessories), for any use, of vulcanized rubber without hardening.





National leader in urethane prepolymers



Concern for sustainability and environmental care is becoming increasingly important, which has led to prioritizing the use of materials that reduce environmental impact. In this sense, **urethane prepolymers have gained great relevance due to their multiple advantages and benefits for industries. These versatile and easy-to-process chemical compounds have become an efficient and responsible alternative, offering numerous applications in various sectors and making a significant difference in society.**

In Argentina, RECSA is a company that for more than 30 years has specialized in the design, manufacture and marketing of high-quality urethane prepolymers for various industrial applications. For example, casting molding, adhesives for bonding different substrates, coloring systems for grinding NFU (end-of-life tires), in a wide range of colors, polyurethane resins for the electrical industry, construction and polyurethane coatings, among others.

As the world is increasingly oriented to the recovery of products and reuse of scraps, among its most demanded lines is Recsabond AG, composed of resins that agglomerate different types of products such as ground rubber and cork.

“Our company is nationally and internationally recognized for its track record, immediate response and solutions with products that meet the demands of a wide range of industrial sectors”, says Valeria Smolinski, president of the company.



There is growing concern about the environmental and social impact of natural rubber production. There is increasing demand for sustainable and responsible sourcing. Many companies are taking steps to ensure that their supply chains are more sustainable.

Source: Global Natural Rubber Market Report

Karina Potarsky, director of INTI's specialized Rubber center, comments that the Institute assists the company in different aspects, for example: advice on the types of ground rubber, ideal for agglomeration; laboratory analysis on types of mixtures between polyurethane and recycled rubber; damping, shelling, abrasion, elongation, aging of polyurethane to analyze its quality.

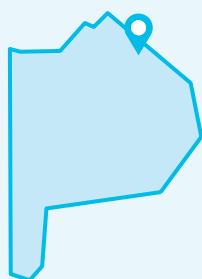
Work was also carried out on the development of urban waste ash agglomerates with resins, achieving an ideal product for the manufacture of all types of products for construction (doors, roofs, walls, windows, etc.).

In addition, INTI worked on the orientation of national and international trends and on the connection with the market requirements of countries in the American continent, in order for the company to position itself in those destinations.

RECSA has extensive experience exporting to Brazil, Chile, Colombia, Paraguay, Peru and Uruguay. For logistic and response time reasons, it wants to increase its presence in Central America and the rest of Latin America.

“We are not only a product, we are national history in our field, and a fundamental component of the trademarks that produce together with us all over the world. We are proud to feel part of the production chain in a huge range of industries and to be a reference in the region”, Smolinski concludes.





RECSA - Reactores Especiales Controlados S.A.

Benavidez, Tigre, Buenos Aires

Design, manufacture and commercialization of urethane prepolymers.

-Production Plant: 2,400 m²

-Product lines:

- RECSAPREN – Line of urethane prepolymers for casting molding.
- RECSABOND – Polyurethane adhesives line.
- RECSACROM – Encapsulated rubber in a wide range of colors.
- RECSASEAL – Line of polyurethane resins used as encapsulants or sealants.
- Polyurethane coatings
- Other products

-Annual production capacity: 1600 tons of products

• HS CODE (NCM):

-3506.91.90.000X / Other. Adhesives based on polymers of headings 3901 to 3913 or rubber. Prepared glues and other prepared adhesives, not elsewhere specified or included; products of any kind used as glues or adhesives, put up for retail sale as glues or adhesives, of a net weight not exceeding 1 kg.

-3909.50.19.000A / Other. Polyurethanes. Amine resins, phenolic resins and polyurethanes, in primary forms. Plastics and articles thereof.





International Cooperation

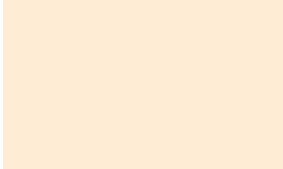


The Latin American Society for Rubber Technology (SLTC) was founded in 1996 with the aim of bringing together professionals, academics and entrepreneurs in the sector. It currently has more than 7,000 members from 38 different countries: not only from Latin America, but also from the United States, Europe and Asia. INTI is part of the aforementioned Society and, given the growing interest shown by this society in research and innovation developments, the formation of the “International Rubber Technology Network” (RITC) was proposed in 2017.

INTI liaises with the main companies of the elastomers sector, academic institutions and chambers of the sector, and therefore had the full support of these actors to extend the Network not only to our region but also to add actors at an international level.

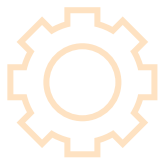
Currently, the RITC is made up of Ibero-American groups that carry out research and/or developments in rubber. From the Institute we consider that international collaboration is a key factor to carry out research. Therefore, the main objective of the network is to disseminate the capabilities of each member group, both to researchers and companies in the field, in order to generate future collaborations or transfers. A network of more than 20 groups from Argentina, Brazil, Chile, Colombia, Venezuela and Spain has been formed. More information can be found at:

<http://www.sltcaucho.org/ritc/>



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Instituto
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Industrial





INTI

Instituto
Nacional
de Tecnología
Industrial

E-mail: boletin_pymesexportan@inti.gob.ar

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