2021 ARCHROMA SUSTAINABILITY AWARDS
Application Form

1. Team

For each team member:
- Name, title, business/service, email address
- Completed and signed consent form <u>with person name as file name</u>
- ID picture in HIGH resolution <u>with person name as file name</u>
- And if possible team group picture in HIGH resolution

Please follow these instruction, as **you may be disqualified** if we don't have time to get them on time before sending the applications for Jury review!

2. Main contact name:

- Gabriela Lazarotto, Production Dyes Manager, Production Dyes, gabrielamartins.lazarotto@archroma.com
- Rawlinson Seixas, Shift leader, Production Dyes, rawlinson.seixas@archroma.com
- Leonardo Baliza, Shift leader, Production Dyes, leonardo.baliza@archroma.com
- Marcio Oliveira da Conceição, Operator, Production Dyes
- Antonio Claudio Chagas, Shift leader, Production Dyes, antonioclaudio.chagas@archroma.com
- Paulo Henrique Marassi, Shift leader, Production Dyes, paulohenrique.marassi@archroma.com
- Paulo Zanotto, R&D Lab Chief, Process Support Lab, paulo.zanotto@archroma.com
- Maisa Santos, Chemist, Process Support Lab, maisa.santos@archroma.com
- Julio Faria, Lab Technician, Process Support Lab, julio.faria@archroma.com
- Willian Dantas, Chemist, Process Support Lab, willian.dantas@archroma.com
- Martin Allegretto, Head of Procurement Latam, Procurement, martin.allegretto@archroma.com

3. Title of the application: (for ease of reference by the Jury and voters)

Li Free Carta Dyes Latam

4. Award category
Please chose one of the following award categories. If you wish to apply for several categories, please complete one application form per category.

I/we apply for the following category (select only one per form, 2 forms maximum):

- ☒ Business Win
- ☐ Diversity & inclusion
- ☐ Environment
- ☐ Excellence
- ☐ Innovation
- ☐ Safety First
- ☐ Sustainable partnership

5. Elevator pitch

Please create a short text to describe your project/submission to describe it and convince jury and voters why they should select it. (max 50 words)

In 2021, due to the shortage and consequent price increase of lithium, with the risk of shortages in the packaging dyes market in Argentina, we worked as a team to promptly supply the yellow and orange dyes based on a Li free process developed in Resende in 2014.

6. Describe how your project and its impact help achieving the category-specific criteria (Max. 1000 words)

The global market has seen a boom in demand for lithium-containing batteries, mostly destined to produce electric car batteries. In this way, Lithium Hydroxide had an increase of more than 500%, making its use in the production of dyes unfeasible.

In 2014, we had developed a Li Free version of the "Carta" dyes line due to the purchase restriction of this component in the Brazilian market and which had been well received by the market, making it a regular sale product.

With the post-COVID crisis and high inflation, business in the local market had decreased and at the same time dyes prices (lithium version) were increasing exponentially in Argentina, so our colleagues consulted us about the possibility to produce Li Free version considering shade and strength used in Argentine market. By the approval Resende plant started the regular supply of both dyes (Carta orange RTG and Carta yellow GCE).

This project results in:
- Keep the sales of Carta Dyes in the Argentine market. The perspective was to supply 410t/year, but current situation indicates around 500t/year (22% above the plan);
- Revenue generation up to end FY22 (30/09/2022) has been 323T USD;
- Direct impact on the occupation of Resende Dyes plant (reduction on EVP- fixed cost- 120 t USD).

7. Describe how your project supports "The Archroma Way to a Sustainable World: Safe, efficient, enhanced, it's our nature" (Max. 1000 words)

Like many natural resources, the supply of lithium is limited. Due to its high reactivity, lithium isn't found in its pure form in nature, being found as ore or in brine water.

How many portable electrical devices do you use?

Your phone, laptop, tablet are likely powered by lithium batteries which is the lightest alkali metal, which makes it an ideal choice. With the arrival of electric vehicles, lithium consumption has increased and producing regions like Australia and South America are in a race to explore its resources. However, its extraction is also associated with environmental conflicts once it takes 500 gallons of water to produce one ton of lithium.

In low rainfall regions, this activity harms water resources on which local communities depend and chemical compounds used in the lithium separation process, such as chloridric acid, can leak into the local water supply and affect air quality.

To supply 410t/y of lithium-free dye, Archroma no longer uses 25t of lithium hydroxide contributing to a more sustainable world.

Beside this, we improved the production process of Li Free Carta Dyes by speedy kaizen proposal of adjustment in the filtration step with slight increase in the yield and elimination of the acid mist in production area.

8. **Describe how your project demonstrates the company mindset "Everybody sells!" supported by our ACTS** (Max. 1000 words)

To make this project possible with the necessary speed and agility, it took a lot of teamwork.
Purchasing colleagues anticipated the imminent risk of an increase in lithium that would make our business in Argentina unfeasible, the Argentine sales team identified the existence of compatible and lithium-free product being produced in Brazil, so the R&D and production team in Brazil was contacted to adjust the Li Free dyes to Argentine costumer's needs.
After process evaluation the trial batch was tested and approved. So, with the demand in place the project was implemented. The purchasing and planning colleagues provided the raw materials to meet the extra demand and optimized production planning in order to deliver the product on time. We faced with a short time to attend the demand. The concept of "Everybody sells" was fulfilled by the involvement of a lot of areas: R&D, Procurement, Production, Planning, Sales, Logistics.

I declare to have read and accepted the privacy policy: https://www.archroma.com/archroma-sustainability-awards-policy

In case the submitted project belongs to a team, I declare that I have the authorization of all of them and that they have read and agreed with the privacy policy (attach to the submission!!!).