



ARLON

# SUSTAINABILITY AT ARLON



# TABLE OF CONTENTS

<b>INTRODUCTION</b>	<b>2</b>
<b>U.N. SUSTAINABILITY GOALS</b>	<b>3</b>
<b>TIMELINE</b>	<b>4</b>
<b>SOCIAL RESPONSIBILITY</b>	<b>5</b>
Ethics	6
Health & Safety (H&S)	6
Employee Wellbeing	7
Sustainable Supply Chain	8
<b>ENVIRONMENTAL RESPONSIBILITY</b>	<b>9</b>
Waste Reduction	10
Energy Conservation	11
Environmental Footprint	12
Sustainable Solutions	13
<b>CERTIFICATIONS &amp; PARTNERSHIPS</b>	<b>14</b>
Certifications	15
Collaborative Initiatives	15
<b>FUTURE VIEW</b>	<b>16</b>



## INTRODUCTION

Arlon is committed to meeting the needs of the present without compromising the ability of future generations to meet their own needs. This guide has been prepared for you to understand our commitment and many efforts regarding sustainability across our business. Our commitment to sustainability is not just a statement; it's a guiding principle embedded in our Purpose that shapes every decision we make.

Arlon was founded in California, USA and has grown to be a global leader in our industry. As we have expanded over the past 50+ years, we ensure the same clean manufacturing and sustainable practices are applied at each global location.

Our commitment to sustainability is rooted in our Purpose:

Our Core Values also drive our behaviors internally and externally— integrity, accountability, and excellence to be achieved through teamwork and an inspirational approach to all we do.

We understand that no company can operate in a sustainable manner alone, that's why we actively seek collaborations with like-minded organizations, suppliers, and our employees. We are active members of action groups within our industry working towards a sustainable future.

Our employees are at the heart of our sustainability efforts. Through education, engagement, and empowerment, we foster a culture where every team member is a steward of sustainability.

Sustainability is a journey, not a destination. We embrace a mindset of continuous improvement, staying agile and adapting to emerging challenges. Together, we learn, grow, and evolve.

## DEFINITION OF SUSTAINABILITY

“Meeting the needs of the present without compromising the ability of future generations to meet their own needs.”

-UN World Commission on Environment & Development



## UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

The United Nations Sustainable Development Goals (SDGs) are a set of 17 interconnected objectives established in 2015, designed to address global challenges and create a more sustainable and equitable future by 2030. By providing a universally shared blueprint for a better world, the SDGs offer a framework for businesses, like Arlon, to align their sustainability initiatives with global priorities. Through our commitment to these goals, we are actively working to build a more sustainable, inclusive, and resilient future for people and the planet.



## TIMELINE OF ARLON'S ENVIRONMENTAL EFFORTS

Arlon, an early supporter of positive corporate impact has been forging, a path to sustainability since 1990, below is our timeline showcasing our commitment to setting industry standards to date.

In the initial decade, the **removal of heavy metals** from cast formulations and the innovative **recovery of energy** from Volatile Organic Compounds (VOC) underscored Arlon's dedication to responsible manufacturing. The subsequent years witnessed a continuous evolution, marked by the adoption of **higher solids adhesives** and a **companywide recycling initiative**, aligning with a broader corporate responsibility ethos.

Advancing into the 2010s, Arlon solidified its pioneering role, introducing **Phthalate-free products** and **eliminating Tin-based silicone liners**, demonstrating an unwavering commitment to environmentally conscious practices. This timeline not only narrates Arlon's sustainability journey but positions the company as a model of corporate responsibility, showing early efforts of responsible and innovative industry practices.

1990 - 2000

Arlon **removed heavy metals** like Cadmium and Lead from all cast formulations.

Initial Phase of **recovering energy** from VOC to use in production leading to 45% of the energy usage for coating lines coming from the internal VOC recovery process, giving a corresponding **reduction in natural gas usage**.

**Recycle cleaning solvent** for re-use (Solvent recovery)

2000 - 2010

Using higher solids adhesives to **reduce VOC**.

Improve the **energy recovery** from internal VOC run casting and coating lines.

**Company wide recycling** of various materials – cores, packaging, cardboard.

2010 - 2023

Our manufacturing locations run on **motion-controlled lighting** to reduce energy consumption.

The 5 most used adhesives at Arlon transitioned **to high solid** in order to reduce VOC emissions.

**Increase recovery from internal VOC** to run casting and coating lines with new oxidizer.

**Removing Phthalates plasticizer**, all calendared and cast products are Phthalate free.

**No Tin based silicone** liner used at Arlon.

## SOCIAL RESPONSIBILITY

### PEOPLE, COMMUNITY & GOVERNANCE

Arlon is a certified Great Place to Work® (GPTW) company. We are evaluated by GPTW annually through a detailed survey of our employees globally, this includes measuring employees perception on honest and ethical business practices, we scored 91% in 2023 on this measure.

At Arlon, we embed social responsibility into our graphic film manufacturing. With our Core Value of Integrity, we prioritize ethical conduct and aim to minimize environmental impact. Our commitment to employee well-being includes continuous improvement initiatives, partnering with the local community on initiatives, training programs, and a focus on inclusion and gender equality.

Efforts towards a sustainable supply chain include aligning with international and EU legislation, utilizing FSC-certified paper liners, and actively engaging in recycling initiatives. Arlon not only meets legal obligations but also positions itself as a forward-thinking contributor, emphasizing social responsibility throughout our operations.



## ETHICS



Integrity and ethical conduct are foundational to Arlon as a graphic film manufacturer. We recognize the potential environmental impact of vinyl production and are dedicated to minimizing it through responsible practices. Our mission is to continue to implement stringent ethical guidelines in our operations.

By integrating sustainability into our Purpose, we aim to not only meet industry standards but exceed them, setting a new benchmark for ethical practices in graphic film manufacturing.

## HEALTH & SAFETY (H&S)



At Arlon, the health and safety of our employees are paramount. Our focus is to prioritize employee well-being and minimize occupational risk. Our TRIR (Total Recordable Incident Rate) decreased by 32.3%, from 4.11 in 2020 to 2.78 in 2022. This is an area where we seek continuous improvement by ensuring our on-site health and safety team are fully supported and focused on employee wellbeing.

We are committed to minimizing occupational risks through continuous improvement initiatives, employee training, investing in state-of-the-art technology and the adoption of innovative manufacturing and safe working processes.



# 90%

When you join the company, you are made to feel welcome.

# 87%

I am given the resources and equipment to do my job.

# 87%

I am able to take time off from work when I think its necessary.

# 86%

Management is honest and ethical in its business practices.

# 85%

Our facilities contribute to a good working environment.

## EMPLOYEE WELLBEING



Arlon is unwavering in its commitment to fostering a workplace culture rooted in diversity, equity, and inclusion. We recognize that gender equality and minority inclusion are not just ethical imperatives but essential drivers of innovation and success. Our commitment extends beyond rhetoric. We actively cultivate an environment that values and respects the unique perspectives and contributions of every individual, irrespective of gender or ethnic background. We measure employee’s perception of fair treatment with regard to sexual orientation, race, gender, and age each year (scoring 90 – 97% - 2023 - in each of these categories). We ensure equal opportunities for career advancement, fair compensation, and a supportive atmosphere, where everyone can thrive. We believe that true excellence can only be achieved when diversity is embraced, and every voice is heard and valued.

Globally (excl. China), 30% of all manager level and above positions are held by women, and, furthermore, 33% represent a minority group. Within China, 40% of all management and above are female.

We take pride in our consecutive Great Place to Work® certification, first achieved in May 2021, underscoring our dedication to providing an exceptional work environment. In 2023, Arlon China was nominated as a top 100 “Best Workplaces in Asia” company by GPTW and is the only China manufacturing company awarded in this category.

Through dedicated budget allocations for ongoing employee development, we try to create a space where we foster employee growth. By actively promoting the development of our team's skills and expanding their knowledge through the provision of an educational budget for all employees, we support them in reaching their full potential and striving for excellence. Our commitment extends beyond producing high-quality graphic film to prioritizing the well-being of our valued employees. This commitment is demonstrated through the results achieved in our Great Place to Work® results annually. To the left are some stats from 2023 GPTW survey.





## SUSTAINABLE SUPPLY CHAIN



Sustainability lies at the core of Arlon's supply chain practices. In pursuit of responsible manufacturing, we are reviewing our supply chain agreements to ensure compliance with evolving standards in sustainable procurement, labor rights protection, and environmental responsibility. We are committed to aligning our practices with current international and EU legislation, such as the United Nations Global Compact, the EU Circular Economy Action Plan, and the OECD Due Diligence Guidance for Responsible Business Conduct.

Arlon fosters a collaborative approach to sustainability, engaging in multiple Research & Development (R&D) meetings with suppliers to align on environmental targets and initiatives, ensuring a shared commitment throughout our supply chain towards a sustainable future.

Demonstrating our dedication over the last three years, **65% of our paper liners, both polycoated and non-polycoated, now originate from FSC-certified forests.** This strategic shift emphasizes our commitment to sustainable forestry practices and responsible sourcing, overseen by our suppliers. Another noteworthy step in environmental responsibility was the cessation of the use of Tin-based silicone liners at Arlon, aligning with the company's commitment to product sustainability.

Simultaneously, we are collaborating with suppliers on recycling raw materials, an ongoing initiative wherein our key raw material is recycled to create end caps. Notably, approximately 25% of the same key material utilizes renewable energy sources, in the production process.

This not only reflects our dedication to meeting legal obligations but also positions Arlon as a responsible and forward-thinking contributor to the graphic film manufacturing industry.



## ENVIRONMENTAL RESPONSIBILITY

We, at Arlon, recognize the role we play in fostering a sustainable future. Environmental protection is not just a commitment; it's a responsibility to safeguarding our planet for generations to come.

In this pursuit, we actively engage in initiatives to minimize our ecological impact and enhance our sustainable practices. Our ongoing environmental efforts focus on waste reduction, energy conservation, and environmental protection, all contributing to a more sustainable and eco-friendly operation. We understand that these measures are integral to the broader global movement towards a greener and more sustainable future.

## WASTE REDUCTION



Early stringent measures of Arlon showcased that sustainability has always been at the core of our mission. Already in the 1990s, we **eliminated Heavy Metals** including Cadmium and Lead from all cast formulation to prioritize environmental safety by reducing the potential for hazardous waste and minimizing the ecological impact. Additionally, by the year 2000 Arlon had successfully implemented a **solvent recovery program**, recycling cleaning solvent for re-use, emphasizes resource efficiency, reducing the demand for virgin solvents and **minimizing waste generation**.

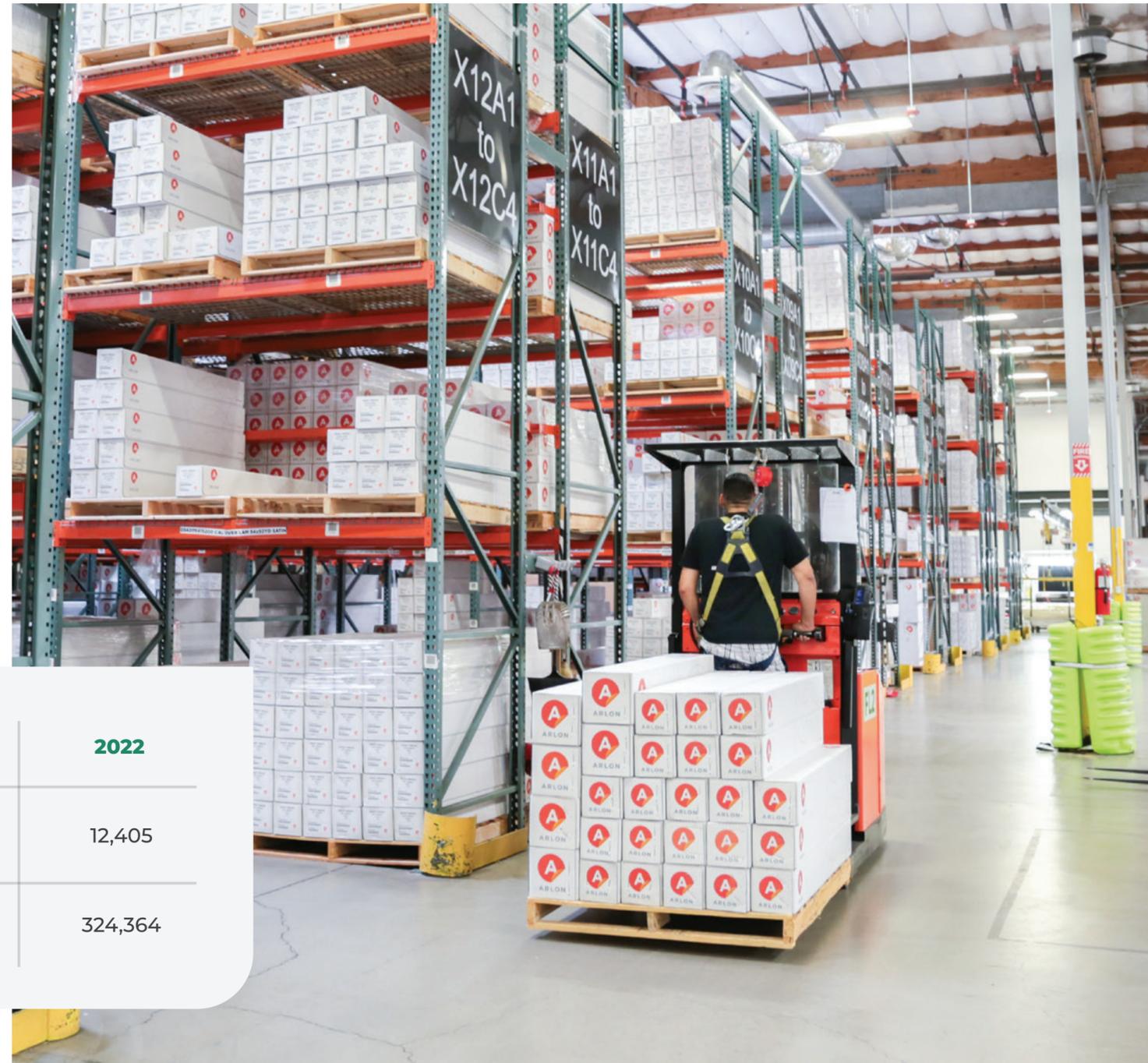
In our ongoing efforts to decrease waste, Arlon has implemented a **recycling and repurposing program** for various materials, including metal, cardboard, paper, cast liner sheets, pallets, cores, cleaning solvent (MEK), aluminum cans, and plastic bottles. We collaborate with suppliers, **reusing packaging materials** like wood, pallets, drums, and air cushions. The introduction of **metal racks** for rolls has significantly reduced the waste associated with building roll racks, while plastic **reusable roll cradles** for internal use further contribute to waste reduction. We have transitioned to reusable totes instead of 55-gallon drums for compounding, demonstrating our commitment to sustainable practices

Additionally, we are only using recyclable boxes which have about 53% of recycled content incorporated in their production.

Our waste minimization program, with a specific focus on hazardous waste, remains a cornerstone of Arlon' sustainability efforts. Utilizing innovative methods such as fuels blending, we have achieved a commendable 2.6% decrease in hazardous waste\*. This safe and effective approach not only **recovers the energy value** of certain wastes but also actively avoids contributing to landfills, preserving our planet's finite natural resources. Our commitment extends to **efficient pickup management**, where we strive to maximize each collection, further minimizing the environmental impact of our waste management practices.

The data from 2022 showcases positive progress in our waste reduction efforts, emphasizing our commitment to minimizing our environmental footprint.

KEY PERFORMANCE INDICATOR (KPI)	2020	2021	2022
RECYCLING PALLETS (UNITS)	5,652	8,016	12,405
RECYCLING PET SCRAP (TONNES)	205,050	291,883	324,364



\*The calculated 2.6% decrease in hazardous waste is derived from our Key Performance Indicator (KPI) data, indicating a reduction in hazardous waste from 1,201 drums in 2020 to 1,170 drums in 2022.



**ENERGY CONSERVATION**



Arlon Graphics remains steadfast in our commitment to energy conservation, implementing a suite of measures that actively contribute to a more sustainable future. Notably, our investments in new, more efficient steam generators equipped with economizers showcase our dedication to **minimizing energy consumption** throughout our manufacturing processes. These enhancements, combined with the installation of a variable-speed, energy-efficient compressor, collectively contribute to a **14.6% decrease in electricity usage** and a **31.5% decrease in gas usage**. Additionally, our strategic transition to LED lighting internally and externally,

along with the adoption of motion-controlled interior lighting, further contributes to the positive trend in energy conservation efforts.

By implementing a **central control system for heating and air conditioning**, we enhance our ability to manage setpoints efficiently. Continuous enhancements in **energy recovery** from internal VOC run casting and coating lines showcase a commitment to operational efficiency and a reduced environmental impact. In conjunction, these efforts contribute not only to **reducing our carbon footprint** but also to creating a more sustainable operational model.

KEY PERFORMANCE INDICATOR (KPI)	2020	2022
ELECTRIC USAGE (KWH PER 1000 SQ FT PRODUCED)	33.6	28.7
GAS USAGE (THERMS PER 1000 SQ FT PRODUCED)	2.32	1.59



## ENVIRONMENTAL FOOTPRINT



At Arlon Graphics, our commitment to environmental protection extends beyond compliance to fostering a healthier planet. Adhering to California Clean Air Standards, our facility utilizes regenerative thermal oxidizers (RTOs) that capture **98% of VOC emissions**, aligning with the stringent requirements of the South Coast Air Quality Management District (AQMD). Arlon Graphics initiated the **recovery of energy** from Volatile Organic Compounds (VOC) for use in production in the 1990s, achieving a **45% reduction in natural gas** usage by the year 2000.

Our commitment to minimizing environmental impact is evident in our choice of best available technology. For **air pollution control**, specifically RTOs, which help **minimize emissions**, we opted for fuel injection over burners to **reduce environmental toxins**, underscoring our dedication to using cleaner technologies. Increased recovery from internal VOC, incorporating a

new oxidizer, **optimizes energy usage**, showcasing Arlon's dedication to efficient and sustainable manufacturing processes.

Besides providing a reliable and user-friendly product, we have always tried to innovate our films and production processes. The **elimination of Phthalates plasticizer** from calendared and cast products demonstrates a commitment to producing safer and environmentally friendly materials. Shifting the primary five adhesives to high-solid compositions represents a deliberate step towards **formulating more sustainable products**, aligning with Arlon's commitment to environmental responsibility.

The transition to an **all-electric forklift fleet** and the employment of **trash compactors** to efficiently manage waste demonstrate our commitment to reducing our ecological footprint.

## SUSTAINABLE SOLUTIONS

At Arlon Graphics, we offer our innovative Vital product range, a testament to our commitment to sustainability. The Vital range features a selection of PVC-Free films designed to cater to diverse application needs, aligning seamlessly with our continuous efforts to reduce our environmental footprint.

The introduction of the Vital product range represents a milestone in our sustainability journey, as we strive to provide effective and eco-conscious solutions for our customers while minimizing our ecological impact.

### Environmental Benefits of the Vital Product Line:

- Polyurethane's VOC Reduction: Our commitment to sustainability for these products broadens into the manufacturing process, where Polyurethane in the Vital product line reduces Volatile Organic Compounds (VOC) by an impressive 57.1%. This reduction not only reflects our dedication to eco-friendly production but also contributes to improved air quality.
- Reduced Environmental Impact in Landfills: The new product line minimizes the leaching of chemicals when disposed of, ensuring that the end-of-life impact is more environmentally friendly.
- Plasticizer-Free Formulation: Polyurethane does not require plasticizer, addressing concerns related to plasticizer release and showcasing our commitment to sustainable material choices.



**VITAL.**



**CERTIFICATIONS  
& PARTNERSHIPS**

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## CERTIFICATIONS

Arlon proudly upholds rigorous certifications at our manufacturing sites. We adhere to ISO 9001:2015, within all manufacturing site, placing customers at the forefront of our quality management practices, in addition our China location has achieved ISO 14001:2015, signifying our dedication to minimizing environmental impact through sustainable practices. In the US, while also ISO 9001:2015 certified, we are actively considering ISO 14001 certification to enhance our environmental management standards, demonstrating our ongoing commitment to operational excellence. Great Place to Work® conducts an annual assessment of our business globally that provides us with data to ensure we understand the employee perspective and help us with continuous improvement efforts.



## COLLABORATIVE INITIATIVES AND ACTION GROUPS

Arlon actively engages in collaborative initiatives to shape a sustainable future. Our commitment extends to action groups, including the UK Sustainability Forum, the Self-Adhesive Industry Sustainability Action Group (SAISAG), ensuring that we contribute to and stay informed about the latest advancements in sustainable practices within our industry.

SAISAG takes a pioneering step towards sustainability by connecting key industry partners to spearhead the development of a pilot recycling program in the United Kingdom. This initiative focuses on creating a robust and cradle-to-cradle recycling program in the UK, specifically tailored to face film and liner materials. By actively engaging with other leading actors in the industry, we are committed to advancing a circular economy model that ensures the responsible and efficient use of resources throughout the lifecycle of our products. This collaborative effort underscores Arlon's dedication to innovation and environmental stewardship, contributing to a more sustainable future for the graphic film manufacturing industry.

We are reviewing joining the EU working group, VinylPlus, fostering collaboration for a future-fit industry. Additionally, we are exploring participation in the United Nations Global Compact, aligning our global operations with responsible business practices.

These initiatives exemplify Arlon's dedication to responsible and forward-thinking business practices.





## FUTURE VIEW

Looking ahead, Arlon is dedicated to furthering our commitment to sustainability by setting ambitious yet tangible targets. Arlon has set three key goals for the business for the next 10 years, one of these goals is to **become a leader in sustainability within our industry.**