

## ENVIRONMENTAL ASSESSMENT FOR 2023

### 1 Background

Mälärplast has, in accordance with the procedures in the operational system, prepared an annual environmental report presented in this document. The investigation was conducted by the company's environmental officer, Tommy Eriksson, in March 2024 for presentation at the management review in May and to the environmental regulatory authority.

Mälärplast's operations require a permit (environmentally hazardous activities, B-classification, since 2017), while the operations of the sister company, Roltex Nordic, are so minor that no environmental permits are required.

Wherever possible, we link our environmental impact factors to Sweden's 16 environmental quality objectives and to the 17 global goals for sustainable development set out in Agenda 2030.

### 2 Environmental Impact Factors.

#### 2.1 Location.

The operations are conducted in modern workshop facilities covering approximately 3,200 square meters, with offices, changing rooms, and staff rooms integrated into the workshop building. The building is located in an industrial area without residential housing. In 2015, the facility area was expanded by approximately 600 square meters through the construction of a new warehouse and a two-story building with new staff areas and an assembly hall. In 2023, Mälärplast purchased an adjacent railway embankment from the municipality to potentially build a new facility connected to the current building in the future.

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#### 2.2 Soil Contamination.

In the fall of 2007, Structor Miljöteknik conducted a preliminary environmental investigation of the property at Hejargatan 14 on behalf of the company. No contamination exceeding the current threshold values for industrial properties was found. In 2022, Structor collected samples from the recently purchased railway embankment. Contaminations exceeding threshold values were found 50-60 cm below the surface. Mälärplast must remediate this contamination before any construction can begin. However, construction is not planned at this time.

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### 2.3 Water, consumption/usage.

The water used by the company is supplied through the municipal pipeline network. The company's annual water requirement is approximately 440 cubic meters, primarily for hygiene and cleaning purposes. The workshop facility does not have floor drains.

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### 2.4 Energy Consumption.

The property uses a water-based heating system for the offices and common areas. These spaces are heated via a heat pump and excess heat from the production process. When production does not generate enough heat, electric heaters are used in the premises, and a ground-source heat pump with a supporting electric heater is used for the office and staff areas. Electrical energy is supplied by Eskilstuna Energi och Miljö.

In 2023, the annual consumption of electrical energy amounted to 1540 MWh (1400 MWh in 2022). Our rooftop solar panel park produced 113 MWh in 2023, which corresponds to approximately 7% of Mälarplast's total electricity consumption. On February 1, 2023, an electrical inspection of the premises was conducted, revealing two minor issues. These issues have been addressed, and the Electrical Board has approved the inspection with the implemented measures.

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### 2.5 Refrigerants.

In 2017, the old cooling system for process water (Green Box) was replaced. At that time, the system was delivering only 63 kW compared to the original 80 kW. A new cooling system (Blue Box) with a capacity of approximately 120 kW was installed in May 2017. This modern machine has better performance and has thus reduced electricity consumption. An annual inspection report is carried out by EK Kyl and submitted by the company to the Municipality of Eskilstuna.

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### 2.6 Production Materials.

In the compression molding and injection molding of thermosetting plastics, production materials such as SMC (Sheet Molding Compound), BMC (Bulk Molding Compound), and phenolic molding compound are used. SMC and BMC contain the monomer styrene, which is necessary for the curing process. Purchases of SMC and BMC decreased in 2023 due to a decline in orders for parts containing these materials. A summary of the consumption of production materials has been prepared and is updated annually (see Appendix 1).

During 2023, we continued manufacturing mobile phone cases using PLA and hemp, which are based on 100% biomass, as well as medical articles made from bioplastics and candy boxes manufactured in bioplastics. Additionally, production of three different medical waste containers made with bioplastics and 30% wood fibers continued, and we have also started producing four larger medical waste containers in the same material.

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Currently, over 30% of the components produced in thermoplastics consist of bioplastics. Several projects involving bioplastics or recycled plastics are also underway.

Furthermore, we grind discarded plastic parts from production, which are then sorted by specific plastic type and blended with new material in production (up to 30%). We have also incorporated processes to ensure that ground material is available in stock for use.

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### 2.7 Chemicals and foreign Substances.

A chemical register has been established regarding the substances used in production. Chemical products and hazardous waste are labeled and stored in sealed containers on impermeable surfaces protected from precipitation and impacts. The company has designated chemical cabinets and a marked environmental station. Liquid chemical products and liquid hazardous waste are stored within impermeable bunding as required.

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### 2.8 Air Emissions.

Our operations are conducted to minimize the risk of air disturbances. Plastic raw materials and other substances containing solvents are stored and handled in a manner that minimizes emissions to the air. Throughout the year, there have been no complaints regarding odors.

During the curing process of SMC and BMC, styrene is emitted into the ambient air. Measurements were conducted in June 2021, and new measurements are scheduled for 2024. The measurements consistently show levels well below the applicable NGV (21-24% of the limit value of 43 mg/m<sup>3</sup>).

According to specifications from the SMC manufacturer, the compound contains approximately 12.5% styrene. In 2023, approximately 22.6 tons of SMC/BMC were processed (compared to 17.9 tons in 2022), resulting in approximately 2,825 kg of styrene emitted, approximately 56.5 kg to the air. Other emissions to the air are considered minimal.

In spring 2021, further measurements of thermosetting plastic dust were conducted with satisfactory results. The findings were reported to the Swedish Work Environment Authority (Arbetsmiljöverket), which confirmed that no additional measures are required.

According to the decision of the Environmental Permitting Delegation (MPD), no further actions regarding purification or similar measures are necessary. The MPD has therefore set final conditions for Mälarplast's permit, specifying that emissions of dust to the air after purification must not exceed 5 mg/m<sup>3</sup> (normal dry gas). The condition requires the company to conduct dust emission control every three years, with an updated measurement planned for 2024. Decision was made at a board meeting in 2023 to phase out the company's operations in producing components in SMC and BMC by 2024. The process of phasing out commenced in December 2023 and is expected to be completed by March 2024. Consequently, no dust emission control will be required in 2024.

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#### 2.9 Noise.

No noise directed towards residential areas from the operation can be detected outside the workshop facility. No measurements need to be conducted due to the significant distance from residential areas. Throughout the year, no complaints regarding noise have been reported. Additionally, there are no activities within the operation that generate high or persistent noise levels.

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#### 2.10 Waste and Hazardous Waste.

All operational waste is handled by Stena Recycling according to contract. The total amount of waste increased from 67 tons in 2022 to 90 tons in 2023. With current expected production volumes, these quantities are projected to decrease to approximately 30-40 tons over time.

The amount of combustible waste totaled 30.8 tons in 2023 (compared to 18.7 tons in 2022). Plastic waste increased to 45.9 tons in 2023 (32.1 tons in 2022).

In 2023, 614 kg of hazardous waste was sent (297 kg in 2022). Disposal of 2 decommissioned machines resulted in a slightly larger quantity of hydraulic oil being emptied and categorized as hazardous waste. The average quantity typically ranges around 1-1.5 tons over time.

Stena Recycling AB submits information on hazardous waste to the Swedish Environmental Protection Agency's electronic waste register under the authorization granted by Mälärplast AB.

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#### 2.11 Packaging.

Soft plastics and corrugated cardboard are managed according to an agreement with Stena Recycling. The companies have been affiliated with Packaging and Newspaper Collection (FTI) and now also with Business Industry's Producer Responsibility (NPA). They report the quantities of paper and plastic packaging released onto the market.

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#### 2.12 Emergency Preparedness.

The company conducts systematic fire protection efforts internally. Fire extinguishers are present and inspected annually by a third party, and emergency exits are appropriately marked according to regulations. Eskilstuna Fire Department conducted an inspection of

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fire safety on September 3, 2020, finding no issues. Any potential leaks of oils or chemicals are addressed with absorbents and treated as hazardous waste. A list of potential incident and accident risks is also maintained, regularly reviewed, and updated. There is no need for additional emergency preparedness measures at this time.

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### 2.13 Transport and travel .

The company owns a vehicle (a pickup truck) in addition to leasing cars for key personnel. Other transports are contracted out to certified suppliers, all of which occur during daytime hours.

The majority of Mälarpplast's transports involve recipient freight handled by customer-designated freight forwarders. The company has minimal influence over transport methods, routes, etc.

The primary freight forwarders utilized by Mälarpplast include DHL, Schenker, and Geodis Wilson. These companies compile all environmental reports and actively engage in environmental improvement measures.

While the number of business trips has slightly increased, many meetings continue to be held digitally.

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### 2.14 Collaborations

**International:** Roltex participates in the European collaboration EPIQ (European Partners in Quality). EPIQ focuses on designing sustainable products manufactured in Europe.

In 2023, we acquired a company in Belgium named Roltex, with whom we have previously had a good collaboration. This acquisition allows us to implement our environmental initiatives and strengthen both brands.

**National:** Roltex, in conjunction with Mälarpplast, continues to promote the "Green Loop System" concept. This system offers a rental service for recycled plastic tableware made from certified and environmentally friendly bioplastics. The Green Loop System provides a complete service with benefits such as smoother cost flows, environmental advantages through recycling, and other benefits associated with plastic tableware. Additional products included in the Green Loop System, such as recycled cutting boards, have been launched. The Green Loop operations have expanded this year, attracting new customers, and several wholesalers have shown interest in the concept.

We also offer other products using recycled materials, such as construction plugs. All these recyclable products contribute to reducing our CO2 footprint compared to using virgin materials in products.

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### 3 Significant Environmental Aspects of the Company.

Taking into account the environmental impact factors described above, as well as the consumption figures detailed in Appendix 1, the following assessment has been made regarding the company's most significant environmental aspects. However, styrene and thermosetting plastic production materials will be removed as environmental aspects as the company phases out the production of components in SMC and BMC by 2024..

Environmental aspect	Frequency/quantity	Impact on environment and health	Environmental index
Styrene	2	4	6
Electric energy	3	2	5
Thermosetting plastic production material	2	3	5
Transport & travel	2	3	5
Thermoplastic production material	3	1	4
Hydraulic oil	1	2	3
Packaging	2	1	3
Refrigerant	1	2	3
Water	1	1	2

An environmental index above 4 indicates significant impact relative to Mälarplast's operations.

#### 3.1 Styrene.

The emission of styrene into the air can be limited through purification methods, which, however, are very costly. Total emissions into the environment are low, thus the focus has been on ensuring occupational safety through proper extraction systems. Measurement of emission levels is conducted in accordance with regulations.

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#### 3.2 Electric Energy.

The largest energy consumption occurs with electricity, especially in the injection molding process including process cooling. Heating the plastic melt and the drive motors of the injection molders account for the majority of this consumption. The energy usage primarily depends on the production volume, but several measures can be implemented to reduce consumption:

- Operating longer production shifts to reduce the number of starts/stops
- Minimizing setup times and interruptions
- Turning off machines during nighttime and implementing automatic start-up in the morning for machines to be operational during the day
- Modern injection molders and cooling systems consume less electricity

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In 2023, 1 new injection mold machine and 2 better-condition used injection mold machines were purchased, while 2 older ones were scrapped. The new injection molders are more energy-efficient and consume less electricity than the older ones.

Throughout 2023, we continued monitoring several machines for their electricity consumption. However, we did not identify additional parameters or measures to further reduce electricity consumption. Therefore, we decided to conclude the project.

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### 3.3 Thermosetting Plastic Production Material

Unlike thermoplastics, thermosetting plastics cannot be recycled and instead become combustible waste. It is therefore crucial to reduce waste and excess material (e.g., flash). Maintaining a focus on using only necessary amounts of material and minimizing waste is always a top priority.

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### 3.4 Transport & travel

See point 2.13.

### 3.5 Follow up on Previous Year's Environmental Goals and Goals for the coming year

#### 3.5.1 Follow up on Environmental Goals 2023

##### Goal 1:

During 2023, we will conduct an assessment of our climate impact and our carbon footprint to implement measures to reduce it.

The goal is achieved as we have conducted an assessment of our total CO2 footprint cradle to gate. We have determined a comprehensive footprint of 4.7 kg CO2 per kg product, of which our internal generation is approximately 0.5-0.6 kg CO2/kg product, with the remainder coming from the raw material footprint. This underscores that transitioning to more bioplastics with lower life cycle assessments (LCA) offers the greatest potential for savings.

##### Goal 2:

In 2023, together with FrostPharma, we will conduct a Life Cycle Assessment (LCA) for the WoodSafe containers.

The goal is achieved as we have developed an LCA for the hazardous waste containers in collaboration with FrostPharma.

##### Goal 3:

In 2023, we will investigate the possibility and potentially decide to store the electricity generated by our solar panels in a battery. Responsible person: Peter Wall

The goal is achieved as the battery modules have been installed and will soon be put into operation.

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### 3.5.2 New Environmental Goals for 2024

These will be developed during the management review, and follow-up will occur in 2025.

Eskilstuna 2024-03-29

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