

Sustainability Certificate 2024

Liveo Research GmbH, Staufen im Breisgau

made valuable contributions to climate and environmental protection through its collaboration with the REMONDIS Group again in 2024.*

- Raw materials savings:
 - Fossil resource savings amounting to 121.1 t oil equivalent
 - Consumption of metals amounting to 1.1 t copper equivalent
 - Biogenic resource savings amounting to 32.7 t wood equivalent
- Energy savings amounting to 1,712.2 MWh
- Greenhouse gas emission savings amounting to 103.6 t CO₂ equivalent

According to the Waste Balance 2024, the following waste streams were taken into account in the evaluation process:
aluminum // brass // copper // kitchen & canteen waste // materials contaminated with oil // mixed building & demolition waste
mixed waste for recycling // paper, card, cardboard // plastic film, plastics // scrap metals // sludges from on-site effluent treatment
small electronic devices // spray cans // V2A.

The environment thanks. We thank you for your trust.

REMONDIS SE & Co. KG


Thomas Conzendorf
Board Member

REMONDIS Sustainable Services GmbH


Sven Averhage
Managing Director

* The data was determined by the REMONDIS Group using a scientific calculation tool developed by the Fraunhofer Institute for Environmental, Safety, and Energy Technology UMSICHT, Institute Branch Sulzbach-Rosenberg. As of: 01.2025

Waste report 2024

Customer: Liveo Research GmbH, Staufen im Breisgau

Customer ID: 313402

Waste Code	Waste Designation	Container Type	Amount	Unit	Transports
02 02 04	sludges from on-site effluent treatment	various vehicle and container systems	11.00	PAU	11
15 01 01	1.04 cardboard	20.0 cbm roll-off tippers press	17.37	TO	9
15 01 02	PE foils, colourful	20.0 cbm roll-off tippers press	6.73	TO	1
	PET, white	36.0 cbm roll-off tippers container	91.31	TO	92
15 01 06	mixed waste for recycling	7.0 cbm skip-loaders container	1.00	PCS	1
		10.0 cbm skip-loaders container	2.14	TO	4
		20.0 cbm roll-off tippers press	151.93	TO	24
		36.0 cbm roll-off tippers container	1.20	TO	3
15 02 02*	absorbents, filter materials	800 l ASP - safety container	6.98	TO	3
		7.0 cbm skip-loaders container	1.52	TO	2
16 05 04*	gases in pressure containers containing hazardous substances	120 l drums with lock rings	90.00	KG	3
17 09 04	mixed construction and demolition wastes	7.0 cbm skip-loaders container	3.03	TO	1
20 01 08	kitchen and canteen waste	120 l wheelie bin	57.00	PCS	57
20 01 35*	electronic waste	1.0 cbm wire mesh container	1.69	TO	6
20 01 40	aluminium	1.0 cbm wire mesh container	0.03	TO	1
	copper		0.17	TO	
	brass		0.10	TO	
	mixed scrap light		0.34	TO	
	V2A - stainless steel		0.07	TO	

Addendum to the evaluation tool used for REMONDIS' Sustainability Certificate Liveo Research GmbH, Staufen im Breisgau

The REMONDIS Group's Sustainability Certificate follows the central principle of a life cycle assessment and looks at the impact that the treatment of waste streams has on the environment and climate. As a rule, recycling waste to recover materials for reuse and/or to recover energy are both associated with saving virgin raw materials, energy and greenhouse gas emissions, compared to the use of primary resources. All process steps are taken into account to calculate the figures for the Sustainability Certificate – from the moment the waste is generated, all the way through to the materials being recycled for reuse and/or to recover energy and the substitution of virgin raw materials.

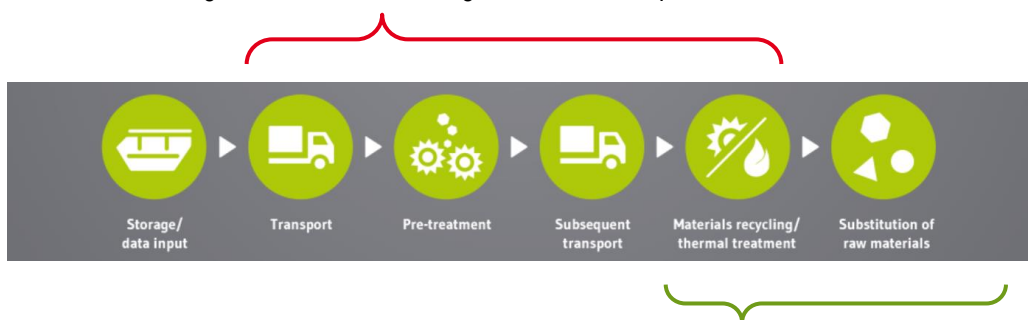
These savings are calculated with the help of this evaluation model by offsetting the negative and positive factors using a method based on the DIN EN ISO 14040 life cycle assessment. The values calculated are reported in line with the GHG Protocol.

The following equivalent values are shown to illustrate the figures documented on the certificate:

- The energy savings amounting to 1,712.2 MWh are equivalent to the volumes of energy needed to cover the annual electricity and heat requirements of 100 average households in Germany.
- The greenhouse gas savings amounting to 103.6 tonnes CO₂ equivalent are the same as the equivalent emissions caused by a car travelling 0.6 million kilometres.

Breakdown of the environmental impacts into positive and negative factors in 2024

- Consumption of raw materials:
 - Consumption of fossil resources amounting to 23.2 t oil equivalent
 - Consumption of metals amounting to 6.2 t copper equivalent
 - Consumption of biogenic resources amounting to 9.8 t wood equivalent
(with an average density of 537.5 t/m³)
- Energy consumption amounting to 453.2 MWh
- Greenhouse gas emissions amounting to 213.8 t CO₂ equivalent



- Raw materials savings:
 - Fossil resource savings amounting to 144.2 t oil equivalent
 - Metal savings amounting to 5.1 t copper equivalent
 - Biogenic resource savings amounting to 42.5 t wood equivalent
(with an average density of 537.5 t/m³)
- Energy savings amounting to 2,165.4 MWh
- Greenhouse gas emission savings amounting to 317.4 t CO₂ equivalent

Calculation methodology of the REMONDIS sustainability certificate



The calculation model for the assessment of savings of primary resources, energy and greenhouse gases by waste disposal and utilization is oriented towards the life cycle assessment methodology of DIN EN ISO 14040. The model takes into account the following process steps:

- Collection
- Transportation
- Pretreatment
- Utilization

Regarding waste recycling, the calculation model implicates the respective savings of primary resources.

Regarding energetic recovery of waste, the calculation model considers the energy gained from incineration or fermentation as well as the raw material savings achieved through the substitution of the German electricity and heat mix.

Regarding the savings of greenhouse gas emissions, the calculation model implicates the emissions and savings of all process steps.

Fraunhofer UMSICHT, Institute Branch Sulzbach-Rosenberg, assumes responsibility for the calculation model. Displayed results are based on customer-specific input data.



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Sulzbach-Rosenberg, 23rd of January 2025