

Nedal reducing CO2-footprint

Nedal is committed to reduce the GHG-emissions in order to keep the warming of the earth below 1,5 °C.

1. Scope 1 and 2 (see graph)

Scope 1 and 2 are the greenhouse gas emissions from the direct activities of Nedal and related emissions from energy production (electricity).

Nedal has successfully rolled out the government-supported energy saving program "Energy Efficiency Plan (EEP) ".

Nedal is moving forward to further increase the energy efficiency of production.

Examples include new investments such as cooling towers, cooling of profiles at the press, electrical powered forklift trucks and stimulating electrical- and hybrid company cars.

In addition, the energy consumption of Nedal's process equipment is being monitored to identify opportunities to save energy (ref.: Energy Audit, July 16th 2024)

The graph shows the scope 1 & 2 CO2-footprint for the sector (ASI) and for the Nedal process:

The CO2-footprint is significantly decreased by using 100 % green electricity from 2025 onwards (instead of 50%).

Following investments are being investigated:

- Renewal pumps (coolwater circuit).
- Use of excess heat of log furnaces press 4 and 5 (exhaust).
- Isolation of warm pipes and appendages.
- Excess heat storage in solid mass.
- Use of excess heat compressors: Investment approved.
- Heating by infrared, instead of gas: Investment approved.
- Use of heat pump in combination with boiler caustic department.

2030: Change from gas to electricity (ageing furnaces).

2040: Alternative for gas: Green hydrogen.

2. Scope 3 (see graph)

Scope 3 is the greenhouse gas emission related to the supplychain of Nedal (e.g. Aluminium).

The vast majority of the carbon footprint is the metal aluminium as the raw material for production (approx. 90%).

The carbon footprint depends on the ratio of kg of primary to kg of recycled (secondary) aluminium.

Nedal largely deploys recycled aluminium, with a target to increase the amount of recycled aluminium even further.

Nedal has already achieved a substantial reduction in scope 3 CO₂ emissions:

The graph shows the scope 3 CO₂-footprint for the aluminium extrusion sector (source: Aluminium Stewardship Initiative) and Nedal.

The CO₂-footprint of Nedal is below the footprint of the aluminium extrusion sector.

The aim is to maximize the quantity of recycled aluminium:

The ratio between kg primary and kg secondary aluminium , however, can vary and is strongly dependent on the availability of secondary aluminium on the market (market conditions)

For comparison, CO₂ footprint of aluminium primary production (kg CO₂/kg Al *):

- China production: 20
- Average worldwide production: 16.1
- European production: 6.6
- Nedal (2024): **4.4**

*) Data: European Aluminium

For the production of aluminium in Europe, European Aluminium has developed a strategy to reduce its carbon footprint in line with the max 1.5 degree target: **"Science-based decarbonization pathways for the European aluminium industry "**. See also www.european-aluminium.eu



