

Press Release

Research project on sustainable material recycling

TRILUX and OTTO FUCHS KG investigate the potential of recycled aluminium for new luminaire profiles

Arnsberg/Meinerzhagen, August 2025 - Lighting manufacturer TRILUX and metalworking specialist OTTO FUCHS KG consolidate their expertise in a joint research project to promote circular economy. Since the beginning of 2024, both partners have been working to recycle aluminium louvres from old luminaires for high-quality re-use. The aim of the project is to develop new luminaire profiles from the recycled material. The interim results are promising: using a specially adapted extrusion process, a first prototype was produced from recycled aluminium chips.

The research project focuses on the question of how aluminium from the louvres of old luminaires can be converted into new housings for LED luminaires in the most efficient and high-quality way possible. Feasibility, CO₂ savings potential, product quality and marketability were analysed. The aluminium used was prepared by TRILUX for the recycling process and then further processed in the modern facilities at OTTO FUCHS. A process is used in which the aluminium is not melted – an aspect that has a particularly positive effect on the carbon footprint. For comparison: While so-called low-carbon primary aluminium (aluminium that is produced in a particularly resource-saving way, e.g. by using green electricity) has a global warming potential (GWP) in the range of 4 kg CO₂ equivalent per kilogram of aluminium, the primary material in the recycling process examined has a GWP of only approx. 0.1 kg.

The material tests also show that the newly manufactured aluminium profiles meet all the basic requirements for use as luminaire housings. Various processes were tested for surface finishing – with a clear tendency towards anodising, as it fully preserves the recyclability of the material.

"TRILUX and OTTO FUCHS KG are delighted to implement a project together which deals with the responsible use of resources. The results so far show that sustainable material cycles can be realised in lighting technology – even if further steps are still necessary," says Sebastian Trägner, CTO at TRILUX. "The close cooperation with TRILUX enables us to contribute our recycling expertise specifically to the development of sustainable applications. We see great potential in the

Kommentiert [ST1]: Ich finde den Begriff lighting company unschön, hätte hier gerne den Begriff Specialist verwendet, aber den hat schon OTTO FUCHS, daher manufacturer.

Kommentiert [ST2]: Habe diesen Satz angepasst, damit er verständlicher ist (liegt allerdings an der deutschen Vorlage, hier bitte nochmal korrigieren).



+3-

2

material recycling of aluminium – even beyond this project," adds Dr Sebastian Wurth, Development Engineer at OTTO FUCHS.

The positive insights from the first project phase have encouraged both partners to continue along the path they have begun. The next step will be to further develop the process and test it under practical conditions.

Picture gallery



[Photo: TRILUX_OTTO FUCHS KG_Research project 1]

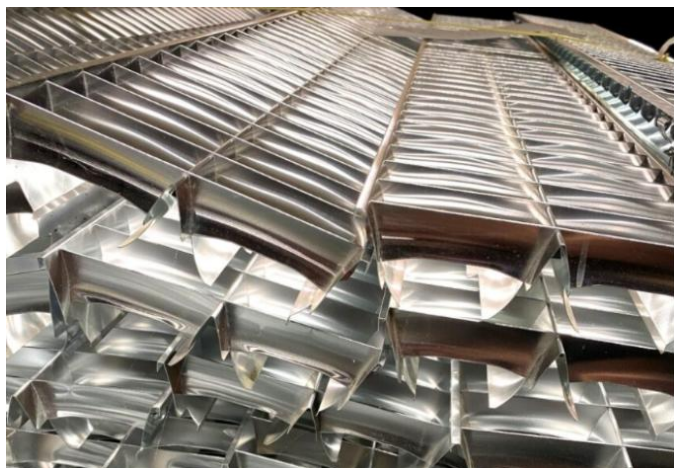
TRILUX and OTTO FUCHS KG are cooperating in a research project to develop new luminaire profiles from the aluminium louvres of old luminaires. Representatives of both partners met to discuss the progress of the project.

(from left to right: Sebastian Trägner (CTO TRILUX), Dr Sebastian Wurth (Development Engineer at OTTO FUCHS), Dr Ing. Lukas Kwiatkowski (Head of Industrial Sales at OTTO FUCHS), Patrik Bieker (Head of Product and Technology Development at OTTO FUCHS), Thomas Schreiber (TRILUX Design & Concept Team), Jörg Ihne (CTO Development & Digitalization, Member of the Executive Board OTTO FUCHS).

Kommentiert [ST3]: Titel mit Otto Fuchs abgleichen

Kommentiert [ST4]: Bitte einheitlich Photo oder Picture verwenden

Picture: Otto Fuchs



[Photo: TRILUX_OTTO FUCHS KG_Research project 2]

Old becomes new: the aluminium from the louvres of old luminaires is processed into new luminaire profiles in an innovative process.

Picture: TRILUX

About TRILUX

TRILUX SIMPLIFY YOUR LIGHT represents the simplest and most reliable path to customized, energy-efficient and future-proof lighting solutions. In the dynamic and ever increasingly complex lighting market, customers are provided with optimal advice, ideal orientation and perfect light. To ensure this, TRILUX offers a wide portfolio of technologies and services as well as high-performance partners and companies in the TRILUX Group. The lighting specialist combines single components to create custom-designed complete solutions – always perfectly tailored to the customer's requirements and specific applications. In this way, complex and extensive projects can be simply and rapidly implemented from a single supplier. According to the principle of SIMPLIFY YOUR LIGHT, simple planning, installation and ease of use is focused on for customers in addition to quality and efficiency.

The TRILUX Group has seven production facilities in Europe and Asia and supports international customers via 33 subsidiaries and a large number of sales partners. The light business division consists of the brands TRILUX SIMPLIFY YOUR LIGHT, Oktalite and Zalux. Associated companies include wtec, Crossscan, ICT and the online platform watt24. As the department for Research and Development, the Innovation Center combines the innovative power under the umbrella of TRILUX. The TRILUX Akademie has locations in Germany, Austria, the Netherlands, Belgium, Great Britain and France communicating expertise concerning topics, trends and new developments in the lighting sector. The company employs just under 5,000 employees worldwide, with headquarters in Arnsberg in Germany.

For further information, please visit our website at www.trilux.com



+3- 4

About OTTO FUCHS

Founded in 1910, OTTO FUCHS KG is a leading international company in the non-ferrous metal industry. We supply customers worldwide, primarily in the aerospace, automotive, construction, and industrial engineering sectors.

Based on our own material development, we manufacture high-quality semi-finished and finished products – especially metallurgically sophisticated forgings, extrusions, and rolled rings made from aluminum, magnesium, copper, titanium, and nickel alloys. These products are used wherever safety, lightweight construction, reliability, and durability are essential.

The OTTO FUCHS Group includes subsidiaries in Germany, Hungary, the USA, and China, ensuring local presence near our customers while upholding high standards of quality and delivery at all times.

For more information, please visit www.otto-fuchs.com.

Press Contact

TRILUX

Company Communications
Isabel Sabisch
Matthias-Brüggen-Straße 75
50829 Köln
Tel.: +49 (0) 29 32.3 01 - 4714
kristin.habbel@trilux.com

FAKTOR 3 AG

TRILUX Press Agency
Katja Jelinek
Kattunbleiche 35
22041 Hamburg
Tel.: +49 (040) 67 94 46 - 6199
trilux@faktor3.de

OTTO FUCHS KG

Jessica Utech
Marketing & Public Relations
Derschlagener Straße 26 | 58540 Meinerzhagen
T. +49 2354 73-4561
M. +49 160 8413760
jessica.utech@otto-fuchs.com