

Aline. Environmental Product Information.

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Wilkhahn



Guidelines.

Truthfulness in product design

We strive to develop lasting products, increase their utility value and reduce waste. "Less is more" or "reduce to the max" are the guiding principles that Wilkhahn continually translates into future contexts. Ecologically oriented design principles are a natural, integral part of product development.

Fairness in cooperation

We focus on people. This implies a cooperative style of management that recognizes employees' representatives as being co-managers who share in shaping the company. Profit-sharing for employees, the development of new forms of work with partly autonomous group and project work, as well as a firmly established health management scheme mark Wilkhahn's social orientation.

Ecological responsibility

Wilkhahn pursues the goal of sustainable development. Wilkhahn corporate culture is shaped by the balance that we strive to achieve between economic, ecological, social and cultural objectives for safeguarding the independence of the company. Adherence to environmentally relevant criteria throughout the entire product life cycle forms the basis of the way in which we judge our success.

**Minimum material input,
maximum transparency, easy handling**
Aline, design: Andreas Störiko

With the Aline product family, Wilkhahn sets a new standard for furnishing areas where professional handling is as important as convincing aesthetics. The skid-base chair is the heart of the Aline product family: cantilever seat and back frames in high-performance polyamide and a graceful skid-base frame in bright chromium-plated steel rod form a stable structural grid with slender material cross sections and low weight. The resilient, colour-matched covering adapts to the widest variety of differing body dimensions, and permanent ventilation for the body contact ensures a pleasant and relaxed sitting experience. The ingenious feature is the elegant design of the seat frame using a "tramline principle": the self-engaging, stackable seat frame allows neat, extremely compact storage, while protecting the fabric, membrane-like upholstery.

Wilkhahn at a glance – commitment statements, certification, awards.

UN-Global Compact, ISO 9001/14001, EMAS, GREENGUARD™, LEED

Sustainability:



UN Global Compact

Processes:



ISO 9001
ISO 14001



EMAS

Product: Aline



GREENGUARD™



Complies with the requirements for the following number of credits under LEED:

LEED CI	5 – 7
LEED NC	4
LEED EB	7

Milestones of socio-ecological development at Wilkhahn

2009 Wilkhahn signed an international framework agreement to assure and extend exemplary social standards on a global scale. Regular internal checks and external monitoring carried out by the workers union IG Metall guarantee that Wilkhahn and its suppliers meet fundamental standards of the International Labour Organization (ILO).

2008 The newly erected co-generator for combining power and heat at the Bad Münder site is powered by renewable raw materials and since 2008 it has ensured virtually CO₂-neutral production

2001 First company in Lower Saxony, Germany, to be certified in accordance with the European Environmental Standard of EMAS 2

2000 Publication of the first sustainability report in the sector of medium-sized companies: Wilkhahn Added Values

1997 Corporate Conscience Award of Council on Economic Priorities, New York

1996 German Ecology Prize of the Deutsche Bundesstiftung Umwelt

1995 Development and introduction of transport packaging; changeover in table lacquering to low-solvent, water-based lacquer

1994 Preparation and implementation of a waste management concept according to the premises of recycling management

1992 Introduction of the Picto swivel chair range as the first office chair in the world with a design concept integrating consistently ecological criteria

1989 Start of "Wilkhahn Green" with a policy statement on ecology: "The Administrative Board and Management have decided jointly to take ecological matters seriously and, in case of doubt, to give priority to such over and above quick profit"

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Reduction of material input and space requirements and optimization of seated comfort and operating convenience

Weight and material input have been reduced to a minimum due to an intelligent construction principle, and the highly resilient, covered seat and back frame provide maximum self-adjustment, as well as rear ventilation for optimal seated comfort. Low weight, easy handling and extremely simple, space-saving stackability are not only advantageous for maintenance crews, but they also reduce economic and ecological cost in terms of facility management and maintenance. It almost goes without saying at Wilkhahn that the materials used and the construction also adhere to ecologically oriented design criteria:

- Reduction of material diversity: the Aline skid-base chair comprises three different materials only. The skid-base frame comprises bright-chromium-plated round steel tube and is therefore extremely durable; the seat and back frame are in glass fibre-reinforced polyamide, covered in resilient polyester; the optional glides are in polyamide or polyurethane for soft or hard floors respectively.
- Sorting of materials and recycling: at the end of a long product life, the materials may be sorted. The steel used already comprises at least 30 percent recycled steel and is 100 percent recyclable. The components in polyamide and polyester are returned to a proper recycling process for plastics.
- Prolongation of product life: the ingenious "tramline principle" protects the upholstery against damage. However, should any damage occur after a long service life, the covered seat and back frames can be exchanged.

The Aline skid-base chair is an excellent example of how an innovative product concept for a multi-purpose chair combined with high-performance, technical materials can lead not only to economic advantages but also ecological and social benefits too. Savings in terms of space requirements and maintenance costs can soon compensate for the consumption of energy and materials during production.

Responsibility from the very start – Wilkhahn Environmental Product Information

The environmental impact of the Logon table has been evaluated for the entire product life cycle – including the extraction of raw materials, manufacturing, utilization and waste disposal – on the basis of a life cycle analysis and assessment (LCA).

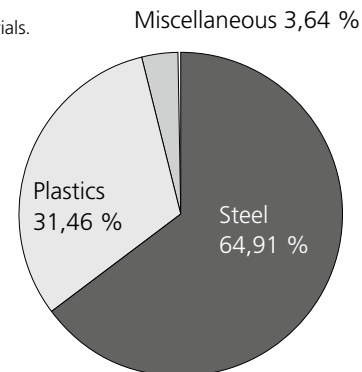


Materials.

Material composition

An Aline multi-purpose chair comprises the following materials. The total weight of the chair is 5.5 kg.

	kg	in %
Metals		
Steel	3,57	64,91
Plastics		
Polypropylene	0,03	0,55
Nylon	1,70	30,91
Others		
Others	0,20	3,64
Total weight	5,50	100



The Aline multi-purpose chair comprises 13 % recycling material (steel). The materials used for Aline multi-purpose chairs are subject to stringent control. An ABC analysis is used to examine substances contained in these materials in terms of environmental and health compatibility. Prohibited chemicals are not used in the product at all. All manufacturing supplies are contained in a register of hazardous substances that forms a basis for further minimization or substitution in the case of potential problematic substances.

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Architectural environment



Co-generator powered by renewable raw materials



Production.

Water pollution control, waste management and sustainable production of energy

Water is becoming an increasingly important resource. Wilkhahn spares no effort to minimize water consumption in production and to ensure that water quality is not impaired. Due to the treatment of process water, the quantities of waste water requiring special supervision has been reduced by 80 per cent.

The Wilkhahn waste management concept embraces sorting waste according to one-type materials, recycling and disposal of all fractions of waste resulting from production and administration.

The newly erected co-generator for combining power and heat at the Bad Münden site is powered by renewable raw materials and from 2008 onwards it will ensure almost CO₂ neutral production

Wilkhahn production sites

Wilkhahn Aline multi-purpose chairs are produced and assembled in Bad Münden (Germany), Castellon (Spain) and Sydney (Australia).

Environmental management system

All Wilkhahn sites work in conformity with a uniform environmental management system that is validated at the Bad Münden site (Germany) and certified in accordance with EMAS ISO 14001.

Process safety and quality management

Both the main Wilkhahn production site and all European sales offices are certified in accordance with ISO 9001. When selecting suppliers, Wilkhahn assigns great value to a comprehensive and viable quality management system.

ILO: All Wilkhahn production facilities guarantee compliance with labour and social standards as required by the ILO (International Labour Organization). Such compliance also forms the basis of cooperation with suppliers. The ILO is primarily concerned with the formulation and implementation of international labour and social standards, particularly core work standards that ensure social and just interpretation and application of all aspects of globalization, as well as the promotion of decent work.

Employees as partners

Top performance requires a potential-oriented corporate organization with flexible working hours, a bonus scheme, and group and project work. In turn, all employees share in corporate success in material terms. They have a comprehensive pension scheme; they are at the heart of company health promotion measures and they work in an environment that, by taking groundbreaking steps in industrial architecture, strives to achieve a synthesis of social, ecological, economic and aesthetic needs.

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Use.

Aesthetics and design

Sustainable products must be purposive. The timeless aesthetics of Aline result in an increase in utility value in terms of enduring use. Combined with long-lasting, hardwearing materials, the art of omission ensures virtually limitless product life and avoids any superfluous components.

Longevity and guarantee

The Aline multi-purpose chair was launched in 2004. More than 44,000 Aline chairs have been sold throughout the world since then. Aline sets standards for product design that is "sustainable" in the most optimal way. The durability of the high-quality materials used, the innovative sitting concept and the classic design guarantee usability for many decades. We give a two-year manufacturers' guarantee which thus provides a serious planning and specifying timeframe. We can vouch for this regardless of the long product service life entailed. We regard guarantees over and above such timeframes as an investment in the future. Our service in terms of "ecological prolongation of service life" includes general overhauling and maintenance of older chairs. Wilkhahn offers repair service for furniture units no longer produced for two further years following discontinuation. Being on the market for a long time, overhaul service and the high durability of Aline multi-purpose chairs mark key aspects of Wilkhahn product philosophy.

Air quality and emissions of pollutants

Aline multi-purpose chairs do not emit any concentrations of gas that are harmful to the environment or to health. Aline multi-purpose chairs are certified in the USA in accordance with GREENGUARD Indoor Air Quality™. GREENGUARD™ is a certification programme for low emitting products.

LEED

Aline multi-purpose chairs support companies by allowing credit points to be achieved in the case of potential LEED certification (U.S. Green Building Council's Leadership in Energy and Environmental Design). Buildings in the USA are evaluated according to this system in terms of their ecological and social impact.

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End of product life cycle.

Return of used products and recycling

Our responsibility does not stop at the end of the utilization phase of a product as we offer our customers extensive services for taking back and recycling used products. We guarantee that used products may be returned in their entirety. The chairs are dismantled at our plant, all components are sorted according to one-type materials and – if possible – are recycled. Due to the clear marking and identification of all materials, due to their nontoxicity and due to easy dismantability, we can today ensure that the components of a Wilkhahn product are returned to both decentral and local material and production cycles and are properly recycled and, if necessary, disposed of. This serves to reduce energy-intensive (and thus ecologically questionable) return transport over long distances.

Disassembly and recycling

All components of the Aline permit non-destructive disassembly. All components weighing more than 150 g bear a material identification mark to ensure that materials can be sorted according to a single type. No material protecting agents or halogen-organic combinations are used that prevent subsequent recycling. A total of 69 % of components of the chair can be recycled.

Returnable transport packaging

Returnable transport packaging made from renewable raw materials is used for office chairs from the Aline range that can be reused, recycled or composted.



International awards

2005: Design Plus Award 2005, Rat für Formgebung (German Design Council), Material Vision, Frankfurt am Main

2006: Red Dot Product Design Award 2006, Design Centre North-Rhine / Westphalia, Essen

2006: Die Besten der Besten (The Best of the Best), Focus Gold "Energy", International Design Prize Baden-Württemberg 2006, Design Centre Stuttgart

2007: iF Product Design Award 2007 in Gold, Hanover