

# Sito. Environmental Product Information.

design made in germany

# Wilkhahn



Sito.  
Structural purity.  
Design: wiege

With the Sito range launched in 2000, the wiege design studio brought the classic form of the steel tube cantilever chair to a new interpretation and refined the principle of a highly flexible structure. The main structure comprises an elegant tubular frame tensioned by cantilevered flat steel braces.

Distributing forces over the braces allowed the cross section of the primary tubular structure to be reduced and elasticity to be increased. A flexible, ergonomically designed seat platform is fitted into this "triangle of forces"; at the front, the seat appears to float over the horizontal tubing and at the back, it is screw-fitted onto the braces. The cantilevered construction provides a high degree of seated comfort with minimal upholstery thickness. The same applies to the viscoelastic backrest that is connected between the vertical extensions of the cantilever braces. The result is a new kind of universally usable cantilever chair that re-defines the typical ultra lightness of cantilever models and presents a minimal appearance whilst ensuring spaciousness and seated comfort.

## 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.

## 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: Sito



GREENGUARD™



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

LEED CI	4 – 6
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 CO<sub>2</sub>-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

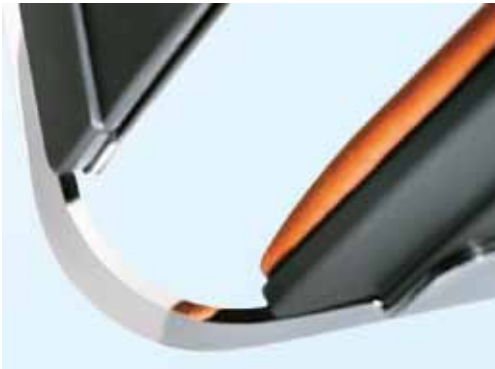
**1995** Development and introduction of transport packaging; changeover in table lacquering to low-solvent, water-based lacquer

**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"

# Sito. Environmental Product Information.



Understated, using one-type materials only and with exchangeable components

Reduction of material thicknesses and material diversity are not only aesthetic criteria, but also environmentally relevant ones. Sito has been consistently developed according to the Wilkhahn ecologically oriented design concept to combine high quality and longevity with exchangeability for seat cushions and optional back cushions.

- The frame comprises high-performance steel tube with braces in low-profile steel that is 100% recyclable. The seat and back shells are in through-dyed, hardwearing polypropylene, optionally also in moulded wood, and the cushions are in covered CFC-free polyurethane foam.
- The armrests are in through-dyed polypropylene or optionally in laminated wood.
- All components are connected mechanically and are therefore maintenance-friendly as they can be exchanged.

Time-stable design, a high degree of seated comfort, high-quality materials and exchangeable cushions allow virtually limitless utilization.

## Responsibility from the very start – Wilkhahn Environmental Product Information

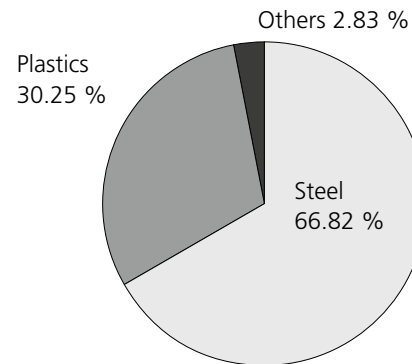
The environmental impact of the Logon table has been evaluated for the entire product life cycle – including the extraction of raw materials, manufacturing, utilization and waste disposal – on the basis of a life cycle analysis and assessment (LCA).



### Materials.

#### Material composition

Metals	kg	in %	
Steel	7.09	66.82	
Plastics			
Polypropylene	2.88	27.14	
Polyurethane foam	0.30	2.83	
Others	0.03	0.28	
Miscellaneous			
Textiles	0.30	2.83	
Total weight	10.61	100	



The total weight of the chair is 10.61 kg.

Sito comprises 13 percent recycling material (steel). The materials used for Sito cantilever 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.

# Sito. Environmental Product Information.

design made in germany

# Wilkhahn



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 CO<sub>2</sub> neutral production

### Wilkhahn production sites

Wilkhahn Sito cantilever 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.

# Sito. Environmental Product Information.

design made in germany

# Wilkhahn



## Use.

### Aesthetics and design

Sustainable products must be purposive. The timeless aesthetics of the Sito range result in an increase in utility value in terms of enduring use. Sito is available with various backrest heights with fully covered seat and back shells for particularly high-quality design concepts. Additional slim cushions, sewn into the cover by hand, give the cantilever model an appearance of elegance and comfortable exclusiveness.

### Longevity and guarantee

The Sito cantilever chair range was launched in 2000. More than 93,300 Sito chairs have been sold throughout the world since then. Sito 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 Sito cantilever chairs mark key aspects of Wilkhahn product philosophy.

### Air quality and emissions of pollutants

Sito cantilever chairs do not emit any concentrations of gas that are harmful to the environment or to health. Products from the Sito range are certified in the USA in accordance with GREENGUARD Indoor Air Quality™. GREENGUARD™ is a certification programme for low emitting products.

## LEED

Office chairs from the Sito range 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.

# Sito. Environmental Product Information.

design made in germany

# Wilkhahn



## 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 dismountability, 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 Sito cantilever chair 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 67 percent 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 Sito range that can be reused, recycled or composted.

