

# FS-Line. LEED Contribution.

design made in germany

# Wilkhahn



Office chairs from the FS-Line support companies by allowing credit points to be achieved in the case of LEED certification (U.S. Green Building Council's Leadership in Energy and Environmental Design). The LEED Green Building Rating System is a voluntary, criteria-based national standard that is used to distinguish buildings in the USA that provide a "healthy" environment, that are water-saving and energy-saving and observe high environmental standards.

## **Product category**

Office chair

## **Certifications**

GREENGUARD™ Indoor Air Quality Certified® (in North America)

## **LEED Contribution**

Recycling content, regional materials, low emitting materials, certified wood

## **Environmental Facts**

- FS-Line (211) comprises 38 percent recycling material (aluminium/steel).
- FS-Line (211) is 83 percent recyclable. All components permit non-destructive disassembly.
- 100 percent recyclability of covered CFC-free cushions in polyurethane foam and seat shells in through-dyed polypropylene. Possibility of easy exchange after years of intensive use.
- Use of re-usable, recyclable or compostable returnable transport packaging made from renewable raw materials.
- FS-Line was first launched in 1980. As a design classic, the product stands for longevity and sustainable product design.
- All Wilkhahn sites work in conformity with a uniform environmental management system that is validated at the Bad Münde site (Germany) and certified in accordance with EMAS ISO 14001. Wilkhahn supports corresponding certification on the part of its suppliers.

# FS-Line. LEED Contribution.

Program	Category	Item	Potential Points	Contribution
<b>LEED-CI</b>	<b>Materials and resources</b>	<b>Construction waste management</b> MR 2.1	1	Use of re-usable, recyclable or compostable returnable transport packaging made from renewable raw materials. Guarantee that used products may be returned in their entirety, including disassembly, sorting and recycling. 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 disposed of.
		MR 2.2	1	Use of re-usable, recyclable or compostable returnable transport packaging made from renewable raw materials. Guarantee that used products may be returned in their entirety, including disassembly, sorting and recycling. 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 disposed of.
		<b>Resource reuse</b> MR 3.3	1	The enduring quality of the high-quality materials, the innovative functional concept, classic, understated design and easy reparability guarantee usability over a period of decades. There is a two-year manufacturers' guarantee. Wilkhahn service in terms of "ecological prolongation of service life" also includes general overhaul and maintenance of older chairs. Wilkhahn offers repair service for furniture units no longer produced for two further years following discontinuation.
		<b>Recycling content</b> MR 4.1	1	Total recycling content 38 percent (No reliable data from suppliers are available for the purpose of differentiation in terms of post-consumer and pre-consumer recycling contents)
		<b>Regional materials and manufacturing</b> MR 5.1	0 – 1	The determining factor for the LEED Contribution is a radius of 800 kilometres from Wilkhahn production or assembly facilities in Bad Münden (Germany), Castellon (Spain) and Sydney (Australia)
		MR 5.2	0 – 1	The determining factor for the LEED Contribution is a radius of 800 kilometres from Wilkhahn production or assembly facilities in Bad Münden (Germany), Castellon (Spain) and Sydney (Australia)
	<b>Indoor environmental quality</b>	<b>Low emitting materials</b> E.Q 4.5	1	GREENGUARD™ Indoor Air Quality Certified®
	<b>Total (LEED-CI)</b>			<b>5 – 7</b>

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<b>LEED-NC</b>	<b>Materials and resources</b>	<b>Construction waste management</b> MR 2.1	1	Use of re-usable, recyclable or compostable returnable transport packaging made from renewable raw materials. Guarantee that used products may be returned in their entirety, including disassembly, sorting and recycling. 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 disposed of.
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		<b>Recycling content</b> MR 4.1	1	Total recycling content 38 percent (No reliable data from suppliers are available for the purpose of differentiation in terms of post-consumer and pre-consumer recycling contents)
		<b>Total (LEED-NC)</b>		

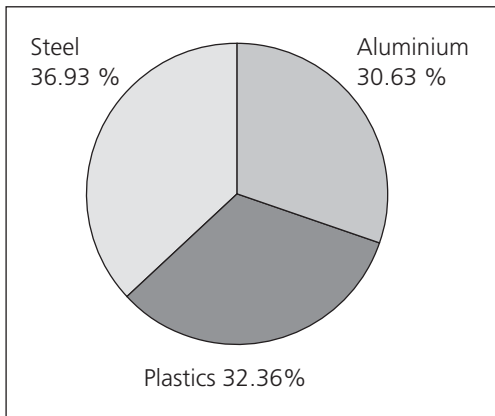
# FS-Line. LEED Contribution.

Program	Category	Item	Potential Points	Contribution
<b>LEED-EB</b>	<b>Materials and resources</b>	<b>Construction, demolition and renovation waste management</b> MR 1.1	1	Use of re-usable, recyclable or compostable returnable transport packaging made from renewable raw materials. Guarantee that used products may be returned in their entirety, including disassembly, sorting and recycling. 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 disposed of.
		MR 1.2	1	Use of re-usable, recyclable or compostable returnable transport packaging made from renewable raw materials. Guarantee that used products may be returned in their entirety, including disassembly, sorting and recycling. 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 disposed of.
		<b>Optimize use of alternative materials</b> MR 2.1 – MR 2.5	5	Re-use/longevity: the enduring quality of the high-quality materials, the innovative functional concept, classic, understated design and easy repairability guarantee usability over a period of decades. There is a two-year manufacturers' guarantee. Wilkhahn service in terms of "ecological prolongation of service life" also includes general overhaul and maintenance of older chairs. Recycling content: the materials used for office chairs from the FS-Line 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. The FS-Line office chair comprises 38 percent recycling material (aluminium/steel).
<b>Total (LEED-EB)</b>			<b>7</b>	

# FS-Line. LEED Contribution.

## An office chair from the FS Line (model 211) comprises the following materials.

The total weight of the chair is 12.70 kg.



<b>Metals</b>	<b>kg</b>	<b>in %</b>
Steel	4.69	36.93
Aluminium	3.89	30.63
<b>Plastics</b>		
Polypropylene	1.98	15.59
Polyurethane foam	1.56	12.28
PVC	0.19	1.50
ABS	0.07	0.55
Others	0.31	2.44
<b>Total weight</b>	<b>12.70</b>	<b>100</b>

The FS Line 211 comprises 38 percent recycling material (aluminium/steel)

The materials used for office chairs from the FS-Line 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.

Calculations of recycled content are based on data provided by suppliers and other available information. This data may include industry averages, ranges or other broadly based information. Wilkhahn makes conservative assumptions when compiling this information to provide the most accurate recycled content calculations possible but variability in market conditions or manufacturing processes may result in higher or lower content. This document will be reviewed and updated periodically and is subject to change without notice.