

ZEITRAUM

SIT

Design by Catharina Lorenz, 2004/2025



Furniture Footprint

SIT Webbing

Design by Catharina Lorenz, 2004 | 2025

The SIT chair collection is being extended to include a version with a woven cotton belt. The seat is carefully woven by hand, guaranteeing the highest quality. The cotton belt impresses with its durability and longevity while offering outstanding seating comfort. The chair's service life is also extended thanks to its easy reparability.

ZEITRAUM furniture meets the highest quality and environmental standards and is primarily made of solid wood. All the materials we use come from responsible manufacturing and are for the most part sourced directly from Germany. The following describes the product: SIT Webbing. Due to the proportion of renewable raw materials, among other things, ZEITRAUM products can contribute to a good rating in certification programmes for sustainable buildings, such as LEED. For more information, please do not hesitate to contact us at any time.

Product details

| | | | | |
|----------------------|---|--|--|--|
| Product category | Chairs | | | |
| Weight | ca. 4,58 kg | | | |
| Certification | CATAS Test EN 1728:2012 Level 2 – extreme | | | |

Environmental details (webbing)

| | | | | |
|---|---|--|--|--|
| Recycled content/ renewable raw materials | ca. 0,15 % recycled material (steel, share: 0,3 %, ø 50 % recycled content) ca. 99 % renewable materials | | | |
| Recyclability | ca. 97 % wood (waste wood category 2) ca. 3 % cotton ca. 0,3 % steel | | | |
| Repairability | Due to the modular construction and the use of solid wood, the furniture can be repaired and refurbished almost indefinitely. We will be happy to assist with spare parts and service where necessary and possible. | | | |

Removeable cover

| | | | | |
|--------|----|--|--|--|
| Cotton | No | | | |
|--------|----|--|--|--|

Manufacturing details

| Furniture element | Production site | Production partner since | Visited by ZEITRAUM | Code of Conduct signed |
|-------------------|--------------------------------|--------------------------|---------------------|------------------------|
| Frame | Baden Wuerttemberg, Germany | 2003 | Yes | Yes |
| Cotton seat | Bavaria, Germany | 2024 | Yes | No |

Packaging

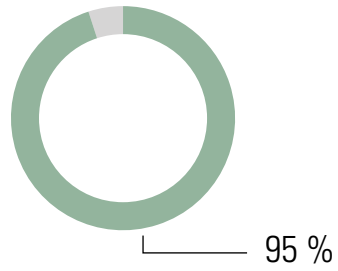
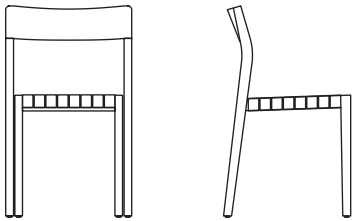
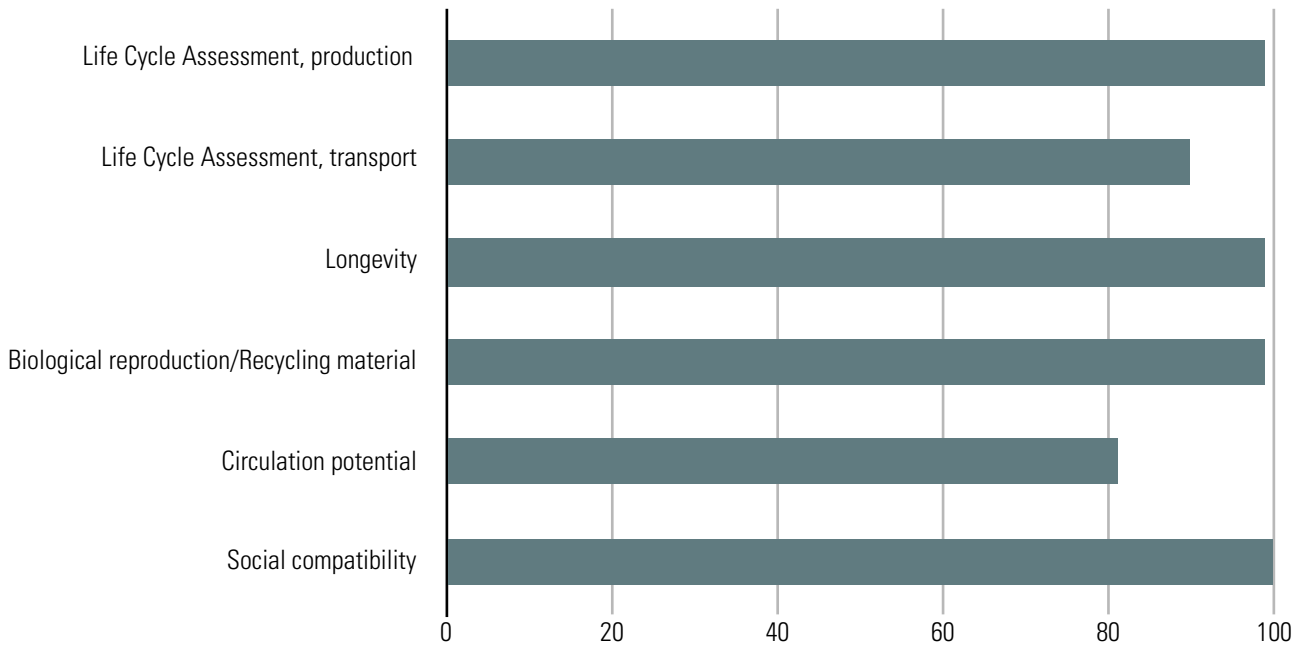
| | | | | |
|----------|----|--|--|--|
| Flatpack | No | | | |
|----------|----|--|--|--|

Two pieces of furniture can be packed in one box

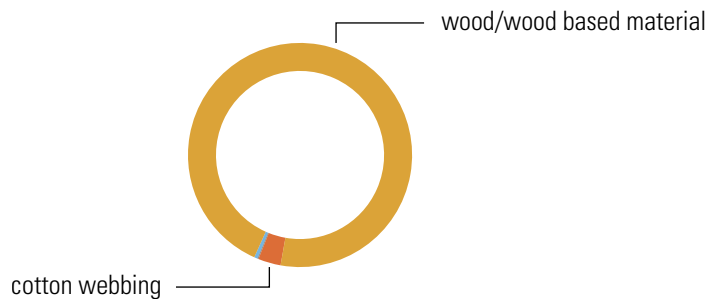
Warehouse

| | | | | |
|---------|---------------|--|--|--|
| Country | Federal state | | | |
| Germany | Bavaria | | | |

SIT Webbing; oak



- wood/wood based material
- cotton webbing
- steel
- other



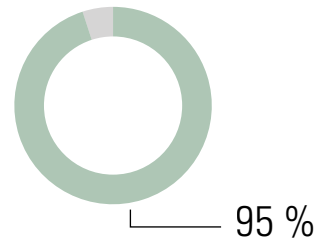
■ 2x Two chairs packable in one box

| SIT Webbing; oak | Material/Product rating | | | | | | |
|---|-------------------------|----------------|--------|--------|-------------------|--------|--------------------|
| | Oak | Cotton webbing | Steel | PA | Natural oil, Osmo | PVAC | Weighted rating, % |
| Life Cycle Assessment, production | 10 | 7 | 5,33 | 3 | 5 | 10 | 98,72495 % |
| Life Cycle Assessment, transport | 9 | 9,5 | 4 | 6,5 | 9 | 6,5 | 89,9765 % |
| Longevity | 10 | 8 | 10 | 8 | 10 | 9 | 99,265 % |
| Biological reproduction/ Recycling material | 10 | 9 | 6 | 0 | 6 | 0 | 99,183 % |
| Circulation potential | 8 | 10 | 10 | 10 | 10 | 4 | 80,656 % |
| Social compatibility | 10 | 10 | 8 | 9 | 10 | 9 | 99,906 % |
| Average rating, $\bar{\mu}$ | 9,5 | 8,916 | 7,221 | 6,083 | 8,333 | 6,416 | Total weight |
| Share in kg | 4,4 | 0,15 | 0,007 | 0,008 | 0,007 | 0,008 | 4,58 |
| Share in % | 96,06 % | 3,27 % | 0,15 % | 0,17 % | 0,15 % | 0,17 % | |
| Weighted rating | 9,125 | 0,291 | 0,01 | 0,01 | 0,012 | 0,01 | |
| Product rating in % | 94,58 | | | | | | |

| Packaging | Material/Product rating | | |
|--|-------------------------|-----------|--------------------|
| | Cardboard | PE fleece | Weighted rating, % |
| Life Cycle Assessment, production | 10 | 3 | 95,625 % |
| Life Cycle Assessment, transport | 9 | 6,5 | 88,4375 % |
| Longevity | 4 | 5 | 40,625 % |
| Biological reproduction/Recycling material | 9 | 0 | 84,375 % |
| Circulation potential | 10 | 10 | 100 % |
| Social compatibility | 10 | 9 | 99,375 % |
| Average rating, $\bar{\mu}$ | 8,666 | 5,583 | Total weight |
| Share in kg | 3 | 0,2 | 3,2 |
| Share in % | 93,75 % | 6,25 % | |
| Weighted rating | 8,124 | 0,348 | |
| Product rating in % | 84,72 | | |



1 Oak



Tab. 1 A: Material data sheet, oak, general¹²

| | |
|---------------------|--|
| Material group | Natural material; wood; hardwood |
| Botanical name | <i>Quercus robur L./Q. patrea Liebl. (Fagaceae)</i> |
| Name | European Oak (GB, US); Eiche (D), Sommereiche (D); Chêne (F) |
| Material Norm. Ref. | DIN EN 13556: QCXE |
| Origin | Germany, (Central Europe) |
| Occurrence | Europe to Asia Minor; North America; most common European occurrence in France |
| Use | Solid and veneer, mainly sliced veneer; furniture and interior fittings; paneling and parquet; structural timber, etc. |

¹ WAGENFUEHR, R. (2007) - Wood Atlas. (6) Leipzig: Hanser Wirtschaft, Fachbuchverlag Leipzig, pp. 255-277

² LOHMANN, U. (2010) - Wood encyclopedia. The standard work for wood and forestry. (4) Hamburg: Nikol-Verlag, pp. 284-285

Tab. 1 B: Material data sheet, oak, specific³

General description

| | | |
|---|---|------------|
| Certifications/Information | FSC and PEFC on request | |
| Life cycle assessment data hardwood, average (GER) | | 10 |
| Resource input per kg | A1-A3 | |
| Total non-renewable primary energy (PENRT) | 2,18 MJ | 10 |
| Use of freshwater resources (FW) | 0,00048 m ³ | 10 |
| Environmental impact per m³ | | |
| Global Warming Potential (GWP) | -1,74 Kg CO ₂ -eqv. | 10 |
| Environmental impact Transport, per 1000 kgkm (690 kg/m³) | | 9 |
| Production site: Germany/ZEITRAUM | | |
| Truck - ca. 300 km | A4 | 10 |
| Total non-renewable primary energy (PENRT) | 362,4 MJ | |
| Use of freshwater resources (FW) | 0,019164 m ³ | |
| Global Warming Potential (GWP) | 26,907 Kg CO ₂ -eqv. | |
| Main raw material origin: Germany, Central Europe/Production site | | |
| Truck - ca. 1500 km | A4 | 8 |
| Total non-renewable primary energy (PENRT) | 1812 MJ | |
| Use of freshwater resources (FW) | 0,09582 m ³ | |
| Global Warming Potential (GWP) | 134,535 Kg CO ₂ -eqv. | |
| Sustainability Assessment | | |
| Longevity | Very durable/repairable (> 20 years) | 10 |
| Biological reproduction/ recycled material | 100 % | 10 |
| Circulation potential | 70 % - 99 % (technological/recycling) | 8 |
| Socially compatible | Yes | 10 |
| Total average rating | | 9,5 |
| Processing | | |
| Mechanical | Good; can be cut and peeled, suitable for turning and carving; pre-drill thin wood for nailing | |
| Drying | Moderately good; slow; tendency to tear and warp; predrying outdoors favorable; good durability | |

³ BMI 2021: Oekobaudat. Database <https://www.oekobaudat.de/no_cache/en/database/search.html> Accessed, on 10/27/2021

| | | |
|--|--|--|
| Adhesion | Good; alkalis can cause stains | |
| Surface finishing | Good; can be stained and varnished, if necessary use pore filler when varnishing; tinting of wood color by smoking | |
| Natural durability DIN EN 350-2 | durable; sapwood low; heartwood durable; also in water; durability class 2 | |

Physical properties

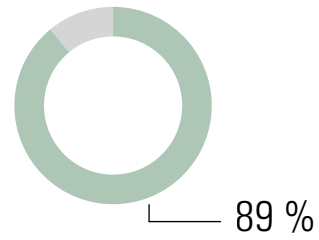
| | | |
|--|---|--|
| Kiln density (0 % wood moisture content) | 390... 650... 930 kg/m ³ | |
| Bulk density (12 - 15 % wood moisture) | 430... 690... 960 kg/m ³ | |
| Pore ratio | ca. 57 % | |
| Shrinkage rate at 1 % moisture reduction | radial - 0,20 %; tangential - 0,32 %; volume - 0,45 % | |

Mechanical properties

| | | |
|--|---|--|
| Compressive strength (σ_{dB}) | Q. robur: 54... 61... 67 N/mm ² Q. petraea: 48... 65... 70 N/mm ² | |
| Flexural strength (σ_{bB}) | Q. robur: 74... 88... 105 N/mm ² Q. petraea: 78... 110... 117 N/mm ² | |
| Tensile strength ($\sigma_{zB} $) | 50... 90... 180 N/mm ² | |
| Tensile strength ($\sigma_{zB} \perp$) | 2,6... 4,0... 9,6 N/mm ² | |
| Shear strength (τ_{aB}) | 6,0... 11,0... 13,0 N/mm ² | |
| Hardness (HB) | 50... 66 N/mm ² | |
| Hardness (HB \perp) | 25... 34 N/mm ² | |
| E-modulus ($E_b $) | Q. robur: 10000... 11700... 13200 N/mm ² Q. petraea: 9200... 13000... 13500 N/mm ² | |



2 Cotton webbing (recycled)



Tab. 2 A: Material data sheet, cotton webbing (recycled), general

| | |
|-----------------------|---|
| Material group | Natural material; Textile fiber material; Natural fiber; Seed fiber; Synthetic Material |
| Name | Cotton (GB, US); coton (FR); Baumwolle (D) Polyethylene (GB, US); Polyéthylène (FR); Polyethylen (D) |
| Material abbreviation | CO; PE |
| Origin | Turkey |
| Further processed in | Italy |
| Use | Mainly in the textile industry; For seating surfaces |

Tab. 2 B: Material data sheet, cotton webbing (recycled), specific⁴**General description**

| | | |
|----------------------------|-----------------------------------|--|
| Certifications/Information | n.a. | |
| Fire resistance | n.a. | |
| Fiber type | Natural fiber and sythetic fibers | |

Basic materials

| | | |
|-----------------|------|--|
| Recycled cotton | 90 % | |
| Polyethylene | 10 % | |

Life cycle assessment data comparative material for cotton webbing (recycled) (no data available) - organic cotton (GER)

7

Resource input per kg**A1-A3**

| | | |
|--|----------------------|----|
| Total non-renewable primary energy (PENRT) | 3,474 MJ | 10 |
| Use of freshwater resources (FW) | 1,079 m ³ | 0 |

Environmental impact per kg**A1-A3**

| | | |
|--------------------------------|----------------------------------|----|
| Global Warming Potential (GWP) | - 1,476 Kg CO ₂ -eqv. | 10 |
|--------------------------------|----------------------------------|----|

Environmental impact Transport, per 1000 kgkm (1.51 g/cm³)

9,5

Production site: Italy/ZEITRAUM**Truck - ca. 500 km**

A4

10

| | | |
|--|---------------------------------|--|
| Total non-renewable primary energy (PENRT) | 604 MJ | |
| Use of freshwater resources (FW) | 0,03194 m ³ | |
| Global Warming Potential (GWP) | 44,845 Kg CO ₂ -eqv. | |

Main raw material origin: Turkey/production site

9

Truck - ca. 2000 km

A4

| | | |
|--|---------------------------------|--|
| Total non-renewable primary energy (PENRT) | 1721,2 MJ | |
| Use of freshwater resources (FW) | 0,12106 m ³ | |
| Global Warming Potential (GWP) | 128,22 Kg CO ₂ -eqv. | |

Sustainability Assessment

| | | |
|---|---------------------------|----|
| Longevity | Permanent (10 - 20 years) | 8 |
| Biological reproduction/ recycled material | 90 % | 9 |
| Circulation potential | 100 % (technological) | 10 |
| Socially compatible | Yes | 10 |

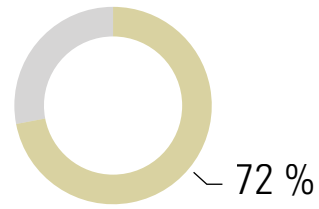
⁴ BMI 2021: Oekobaudat. Database <https://www.oekobaudat.de/no_cache/en/database/search.html> Accessed, on 10/27/2021

Total average rating

8,91



3 Steel



Tab. 3 A: Material data sheet, steel, general⁵

| | |
|----------------|---|
| Material group | Natural material; metals; transition metals |
| Parts origin | n.a. |
| Occurrence | Worldwide; South America, Western Australia, China and Eastern Europe, Canada |
| Use | According to application: building structural and tool steel, structural steel for machinery, vehicle and shipbuilding or mechanical engineering; line pipe, pressure vessel, etc.; handicraft and design; furniture making |

⁵ KALWEIT, A., a.o. (2012) - Handbook of Technical Product Design, Materials and Manufacturing - Decision Bases for Designers and Engineers (2) Berlin: Springer-Verlag Berlin Heidelberg GmbH

Tab. 3 B: Material data sheet, steel, specific⁶⁷

General description

| | | |
|--|---------------------------------|------|
| Certifications/Information | n.a. | |
| Emission class (formaldehyde) | Formaldehyde free | |
| Surface | smooth, hard | |
| Color | Grey | |
| Life cycle assessment data Steel profile, (GER) | | 5,33 |
| Resource input per kg | A1-A3 | |
| Total non-renewable primary energy (PENRT) | 10,99 MJ | 4 |
| Use of freshwater resources (FW) | 0,002314 m ³ | 4 |
| Environmental impact per kg | A1-A3 | |
| Global Warming Potential (GWP) | 0,9944 Kg CO ₂ -eqv. | 8 |
| Environmental impact Transport, per 1000 kgkm (7850 kg/m³) | | 4 |
| Production site: Europe/ZEITRAUM | | |
| Truck ø - ca. 1500 km | A4 | 8 |
| Total non-renewable primary energy (PENRT) | 1812 MJ | |
| Use of freshwater resources (FW) | 0,09582 m ³ | |
| Global Warming Potential (GWP) | 134 Kg CO ₂ -eqv. | |
| Main raw material origin: China/production location | | 0 |
| Truck - ca. 2000 km | A4 | |
| Total non-renewable primary energy (PENRT) | 2416 MJ | |
| Use of freshwater resources (FW) | 0,12776 m ³ | |
| Global Warming Potential (GWP) | 179,38 Kg CO ₂ -eqv. | |
| Container ship - ca. 10000 km | A4 | |
| Total non-renewable primary energy (PENRT) | 1094 MJ | |
| Use of freshwater resources (FW) | 0,005636 m ³ | |
| Global Warming Potential (GWP) | 90,11 Kg CO ₂ -eqv. | |

Sustainability Assessment

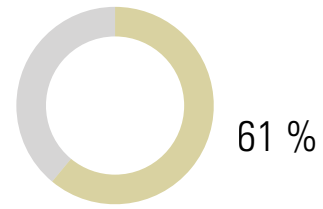
⁶ BMI 2021: Oekobaudat. Database <https://www.oekobaudat.de/no_cache/en/database/search.html> Accessed, on 10/27/2021

⁷ MATERIALARCHIV (2019) - Materialarchiv <<http://www.materialarchiv.ch/app-tablet/#search>> Accessed, on 03/01/2019

| | | |
|---|---|-------------|
| Longevity | Very durable/repairable (> 20 years) | 10 |
| Biological reproduction/ recycled material | 50 - 60 % | 6 |
| Circulation potential | 100 % (technological) | 10 |
| Socially compatible | Yes | 8 |
| Total average rating | | 7,22 |
| Notes | The life cycle assessment of iron improves the more often the material has been recycled or the proportion of recycled material increases | |



4 Polyamide



Tab. 4 A: Material data sheet, polyamide, general⁸

| | |
|-----------------|--|
| Material group | Synthetic material; plastic |
| Name | Polyamide (GB, US); Polyamid (D) |
| Short name | PA |
| Manufactured in | Germany (GER) |
| Use | Machine and equipment construction; vehicle construction; electrical engineering; furniture construction |

⁸ KALWEIT A. (2012) - Handbook of technical product design - materials and manufacturing. Berlin: Springer Verlag

Tab. 4 B: Material data sheet, polyamide, specific⁹¹⁰

General description

| | | |
|----------------------------|--|--|
| Certifications/Information | n.a. | |
| Delivery forms | Granules, fibers, pipes, films, molded parts | |
| Color | Available in all colors | |

Life cycle assessment data Nylon casting (PA 6.6) (GER) 3

| | | |
|--|------------------------|----|
| Resource input per kg | A1-A3 | |
| Total non-renewable primary energy (PENRT) | 251,7 MJ | 0 |
| Use of freshwater resources (FW) | 0,04378 m ³ | 10 |

| | | |
|------------------------------------|--------------------------------|---|
| Environmental impact per kg | A1-A3 | |
| Global Warming Potential (GWP) | 16,91 Kg CO ₂ -eqv. | 0 |

Environmental impact Transport, per 1000 kgkm (1140 kg/m³) 6,5

Production site: Germany/ZEITRAUM

| | | |
|--|---------------------------------|----|
| Truck - ca. 500 km | A4 | 10 |
| Total non-renewable primary energy (PENRT) | 604 MJ | |
| Use of freshwater resources (FW) | 0,03194 m ³ | |
| Global Warming Potential (GWP) | 44,845 Kg CO ₂ -eqv. | |

Main raw material origin: n.a./production site

| | | |
|--|---------------------------------|---|
| n.a. - ø > 7000 km | A4 | 3 |
| Total non-renewable primary energy (PENRT) | 8456 MJ | |
| Use of freshwater resources (FW) | 0,44716 m ³ | |
| Global Warming Potential (GWP) | 627,83 Kg CO ₂ -eqv. | |

Sustainability Assessment

| | | |
|---|---------------------------|-------------|
| Longevity | Very durable (> 20 years) | 8 |
| Biological reproduction/ recycled material | 0 % | 0 |
| Circulation potential | 100 % (technological) | 10 |
| Socially compatible | Yes | 9 |
| Total average rating | | 6,08 |

Processing

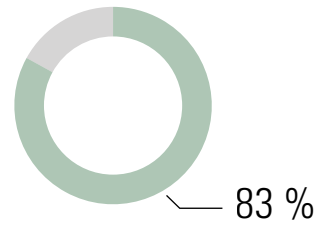
⁹ BMI 2021: Oekobaudat. Database <https://www.oekobaudat.de/no_cache/en/database/search.html> Accessed, on 10/27/2021

¹⁰ MATERIALARCHIV (2019) - Materialarchiv <<http://www.materialarchiv.ch/app-tablet/#search>> Accessed, on 03/01/2019

| | | |
|--|---|--|
| Mechanically | Very good; with conventional plastic processing machines; drilling, sawing; milling; etc. | |
| Adhesion | Good; with adhesives for low-energy plastics | |
| Surface processing | Brushing; Sanding; Painting; Oiling; Embossing | |
| Resistance | Easy care; water resistant; resistant to fungi and insects | |
| Properties | | |
| Elongation at break | 50,0 % | |
| Density | 1140 kg/m ³ | |
| Moisture absorption | 2,5 - 3,5 % | |
| Dielectric strength | 25 kV/mm | |
| Notched impact strength (Charpy) | 3,0 kJ/m ² | |
| Thermal properties | | |
| Vicat softening temperature according to DIN EN ISO 306 Vicat B/50 | 250 °C | |
| Continuous operating temperature | -30 bis 95 °C | |



5 Osmo, hard wax oil



Tab. 5 A: Material data sheet, Osmo, hard wax oil, general¹¹¹²

| | |
|-----------------|--|
| Material group | Coating materials; Oils |
| Name | Hard wax oil (GB, US); Hartwachsöl (D) |
| Manufacturer | Osmo Holz und Color GmbH & Co. KG |
| Manufactured in | Germany (GER) |
| Version | Osmo Hard Wax Oil 3032 satin, 3062 matt |
| Use | Furniture construction; for interior use; also suitable for parquet, cork and terracotta |

¹¹ KALWEIT A. (2012) - Handbook of technical product design - materials and manufacturing. Berlin: Springer Verlag

¹² Osmo (2019) - Osmo Hard Wax Oil 3032 satin, 3062 matte <<https://www.osmo.de>> Accessed, on 03/02/2019

Tab. 5 B: Material data sheet, Osmo, hard wax oil, specific¹³¹⁴

| General description | | |
|---|---|-----------|
| Certifications/Information | ISO 9001, ISO 14001, ISO 18001 | |
| Emission class (formaldehyde) | Formaldehyde-free | |
| VOC's | < 500 g/l (volatile components emit during curing) | |
| Delivery forms | Liquid | |
| Color | yellowish (transparent/yellowish in cured form) | |
| Texture | Glossy to matt (cured) | |
| Contents | | |
| 50 - 60 % solids | Natural oils and waxes (sunflower oil, soybean oil, safflower oil, carnauba and candellila wax) Paraffins | |
| Additives | Siccatives (desiccants) and water-repellent additives | |
| Solvent | Desaromatized white spirit (gasoline-free - according to the purity requirements of the European Pharmacopoeia) | |
| Life cycle assessment data hard wax oil (GER) | | 5 |
| Resource input per kg | A1-A3 | |
| Total non-renewable primary energy (PENRT) | n.a. | |
| Use of freshwater resources (FW) | n.a. | |
| Environmental impact per kg | A1-A3 | |
| Global Warming Potential (GWP) | n.a. | |
| Environmental impact Transport, per 1000 kgkm | | 9 |
| Production site: Germany/ZEITRAUM | | |
| Truck - ca. 200 km | A4 | 10 |
| Total non-renewable primary energy (PENRT) | 172,12 MJ | |
| Use of freshwater resources (FW) | 0,012106 m ³ | |
| Global Warming Potential (GWP) | 12,822 Kg CO ₂ -eqv. | |
| Main raw material origin: n.a./production site | | |
| n.a. - ø 3000 km | A4 | 8 |
| Total non-renewable primary energy (PENRT) | 3624 MJ | |
| Use of freshwater resources (FW) | 0,19164 m ³ | |

¹³ BMI 2021: Oekobaudat. Database <https://www.oekobaudat.de/no_cache/en/database/search.html> Accessed, on 10/27/2021

¹⁴ MATERIALARCHIV (2019) - Materialarchiv <<http://www.materialarchiv.ch/app-tablet/#search>> Accessed, on 03/01/2019

| | | |
|--------------------------------|---------------------------------|--|
| Global Warming Potential (GWP) | 296,07 Kg CO ₂ -eqv. | |
|--------------------------------|---------------------------------|--|

Sustainability Assessment

| | | |
|---|--|-------------|
| Longevity | Very durable/repairable (> 20 years, with good care) | 10 |
| Biological reproduction/ recycled material | 51 - 60 % | 6 |
| Circulation potential | 100 % (biodegradable) | 10 |
| Socially compatible | Yes | 10 |
| Total average rating | | 8,33 |

Processing

| | | |
|-------------|--|--|
| Application | With brush, spatula or spray gun | |
| Storage | Can be stored up to 5 years with tight closure | |

Properties

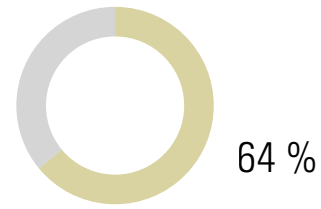
| | | |
|---------------------|------------------------|--|
| Density | 0,89 g/cm ³ | |
| Viscosity | Thixotropic, creamy | |
| Consistency | Medium viscosity | |
| Moisture resistance | Good | |

Notes

Osmo Polyx®-Oil is based on natural vegetable oils and waxes; Osmo Polyx®-Oil contains neither biocides nor preservatives. It is harmless to humans, animals and plants when dry and complies with DIN 53160 (sweat- and saliva-proof) and EURO-NORM EN 71 (suitable for children's toys)



6 PVAc dispersion adhesive, D3



Tab. 6 A: Material data sheet, PVAc dispersion adhesive, D3, general¹⁵¹⁶

| | |
|-----------------|---|
| Material group | Synthetic material; adhesives; dispersion adhesives |
| Name | Dispersion Adhesive (GB, US); Dispersionsklebstoff, PVAc-(Polyvinylacetat) Klebstoffe, Weißleim (D) |
| Manufacturer | Kleiberit Klebstoffe GmbH |
| Manufactured in | Germany (GER) |
| Version | Kleiberit 303, D3-adhesive |
| Use | Furniture construction; especially for interiors; staircase construction, ship interior finishing; surface bonding of HWS; door and window production |

¹⁵ KALWEIT A. (2012) - Handbook of technical product design - materials and manufacturing. Berlin: Springer Verlag

¹⁶ KEIBERIT (2019) - KLEIBERIT 303, D3, PVAc Adhesive <https://interior-construction.kleiberit.com/fileadmin/Content/Documents/DE/Infoblaetter/303_D3_Leim_D.pdf> Accessed, on 02/03/2019

Tab. 6 B: Material data sheet, PVAc dispersion adhesive, D3, specific¹⁷¹⁸

General description

| | | |
|-------------------------------|-------------------------------------|--|
| Certifications/Information | ISO 9001, ISO 14001, ISO 50001 | |
| Emission class (formaldehyde) | Formaldehyde-free | |
| Delivery forms | Liquid | |
| Color | Whitish (transparent in cured form) | |
| Texture | Glossy | |

Life cycle assessment data Dispersion-based solvent-free adhesives, coatings and sealants (GER) 10

Resource input per kg A1-A3

| | | |
|--|------------------------|----|
| Total non-renewable primary energy (PENRT) | 26,7 MJ | 10 |
| Use of freshwater resources (FW) | 0,00758 m ³ | 10 |

Environmental impact per kg A1-A3

| | | |
|--------------------------------|--------------------------------|----|
| Global Warming Potential (GWP) | 0,955 Kg CO ₂ -eqv. | 10 |
|--------------------------------|--------------------------------|----|

Environmental impact Transport, per 1000 kgkm 6,5

Production site: Germany/ZEITRAUM

Truck - ca. 200 km A4 10

| | | |
|--|---------------------------------|--|
| Total non-renewable primary energy (PENRT) | 172,12 MJ | |
| Use of freshwater resources (FW) | 0,012106 m ³ | |
| Global Warming Potential (GWP) | 12,822 Kg CO ₂ -eqv. | |

Main raw material origin: n.a./production site

n.a. - ø > 7000 km A4 3

| | | |
|--|---------------------------------|--|
| Total non-renewable primary energy (PENRT) | 8456 MJ | |
| Use of freshwater resources (FW) | 0,44716 m ³ | |
| Global Warming Potential (GWP) | 627,83 Kg CO ₂ -eqv. | |

Sustainability Assessment

| | | |
|---|---|---|
| Longevity | Very durable/moderately repairable (> 20 years) | 9 |
| Biological reproduction/ recycled material | 0 % | 0 |
| Circulation potential | Only thermally recyclable | 4 |
| Socially compatible | Yes | 9 |

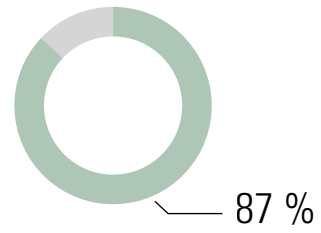
¹⁷ BMI 2021: Oekobaudat. Database <https://www.oekobaudat.de/no_cache/en/database/search.html> Accessed, on 10/27/2021

¹⁸ MATERIALARCHIV (2019) - Materialarchiv <<http://www.materialarchiv.ch/app-tablet/#search>> Accessed, on 03/01/2019

| | | |
|-----------------------------|---|-------------|
| Total average rating | | 6,41 |
| Processing | | |
| Adhesion | With brush, spatula or glue roller | |
| Properties | | |
| Density | 1,1 g/cm ³ | |
| PH level | 3 | |
| Consistency | Medium viscosity | |
| Moisture resistance | D3 | |
| Heat resistance | Up to 120 °C | |
| Notes | PVAc adhesive is available solvent-free and solvent-based | |



7 Cardboard, chairs



Tab. 7 A: Cardboard, chairs, general

| | |
|-----------------|--|
| Material group | Packaging |
| Name | Cardboard (GB, US); Karton (D) |
| Manufacturer | Schuhmacher Packaging GmbH |
| Manufactured in | Germany (GER) |
| Use | Packaging material for the production of cardboard boxes |

Tab. 7 B: Cardboard chairs, specific^{19,20}**General description**

| | | |
|----------------------------|---|--|
| Certifications/Information | ISO 9001, ISO 50001, DIN ISO 22000, DIN EN ISO 14001, EMAS, ISO 28000;2007, FSC | |
| Color | Brown | |
| Texture | matt | |
| Contents | | |
| 85 % | Recycled paper | |
| 15 % | Primary raw material | |

Life cycle assessment data „Kraftpapier“ (GER) 10

| | | |
|--|----------------------------------|--|
| Resource input per kg | A1-A3 | |
| Total non-renewable primary energy (PENRT) | 5,888 MJ | |
| Use of freshwater resources (FW) | 0,004899 m ³ | |
| Environmental impact per kg | A1-A3 | |
| Global Warming Potential (GWP) | -0,8973 Kg CO ₂ -eqv. | |

Environmental impact Transport, per 1000 kgkm 9

| | | |
|--|---------------------------------|----|
| Production site: Germany/ZEITRAUM | | |
| Truck - ca. 200 km | A4 | 10 |
| Total non-renewable primary energy (PENRT) | 172,12 MJ | |
| Use of freshwater resources (FW) | 0,012106 m ³ | |
| Global Warming Potential (GWP) | 12,822 Kg CO ₂ -eqv. | |

Main raw material origin: Germany, Central Europe/Production site

| | | |
|--|----------------------------------|---|
| Truck - ca. 1500 km | A4 | 8 |
| Total non-renewable primary energy (PENRT) | 1812 MJ | |
| Use of freshwater resources (FW) | 0,09582 m ³ | |
| Global Warming Potential (GWP) | 134,535 Kg CO ₂ -eqv. | |

Sustainability Assessment

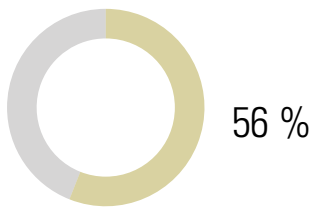
| | | |
|---|--|---|
| Longevity | Moderately durable/repairable (< 10 years) | 4 |
| Biological reproduction/ recycled material | 85 % | 9 |

¹⁹ BMI 2021: Oekobaudat. Database <https://www.oekobaudat.de/no_cache/en/database/search.html> Accessed, on 10/27/2021

²⁰ MATERIALARCHIV (2019) - Materialarchiv <<http://www.materialarchiv.ch/app-tablet/#search>> Accessed, on 03/01/2019

| | | |
|-----------------------------|-----------------------|-------------|
| Circulation potential | 100 % (technological) | 10 |
| Socially compatible | Yes | 10 |
| Total average rating | | 8,66 |
| Disposal note | Waste paper | |

8 Polyester fleece



Tab. 8 A: Material data sheet, polyester fleece, general

| | |
|-----------------------|---|
| Material group | Packaging |
| Name | Polyester fleece (GB); Polyestervlies (D) |
| Material abbreviation | PES |
| Manufactured in | Germany (GER) |
| Use | Packing material for protection |

Tab. 8 B: Material data sheet, polyester fleece, specific²¹²²

General description

| | | |
|---|---------------------------------|-------------|
| Certifications/Information | n.a. | |
| Delivery form | Mats, wadding, etc. | |
| Texture | soft, fibrous | |
| Life cycle assessment data Comparative material for PE wadding (no data available) - PE nonwoven (GER) | | 3 |
| Resource input per kg | A1-A3 | |
| Total non-renewable primary energy (PENRT) | 22 MJ | |
| Use of freshwater resources (FW) | 0,00252 m ³ | |
| Environmental impact per kg | A1-A3 | |
| Global Warming Potential (GWP) | 0,73 Kg CO ₂ -eqv. | |
| Environmental impact Transport, per 1000 kgkm (approx. 0.5 kg/m²) | | 6,5 |
| Production site: Germany/ZEITRAUM | | |
| Truck - ca. 500 km | A4 | 10 |
| Total non-renewable primary energy (PENRT) | 430,3 MJ | |
| Use of freshwater resources (FW) | 0,030265 m ³ | |
| Global Warming Potential (GWP) | 32,055 Kg CO ₂ -eqv. | |
| Main raw material origin: n.a./production site | | 3 |
| n.a. - ø > 7000 km | A4 | |
| Total non-renewable primary energy (PENRT) | 8456 MJ | |
| Use of freshwater resources (FW) | 0,44716 m ³ | |
| Global Warming Potential (GWP) | 627,83 Kg CO ₂ -eqv. | |
| Sustainability Assessment | | |
| Longevity | Durable (10 - 20 years) | 5 |
| Biological reproduction/ recycled material | 0 % | 0 |
| Circulation potential | 100 % (technological) | 10 |
| Socially compatible | Yes | 9 |
| Total average rating | | 5,58 |

²¹ BMI 2021: Oekobaudat. Database <https://www.oekobaudat.de/no_cache/en/database/search.html> Accessed, on 10/27/2021

²² MATERIALARCHIV (2019) - Materialarchiv <<http://www.materialarchiv.ch/app-tablet/#search>> Accessed, on 03/01/2019

Disposal note

Recyclable waste

Information on all materials used by ZEITRAUM
can be found in our material library at:

www.zeitraum-moebel.com

Important note: Our Furniture Footprint product data sheets have no scientific claim and are to be understood as a guide for our customers and us. All data are marked with corresponding source information. The contents of our Furniture Footprint product database have been compiled with the utmost care. However, we do not guarantee the accuracy, completeness and timeliness of the content, so we do not assume any liability for incorrect, outdated or incomplete information.