

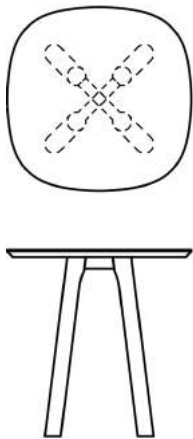
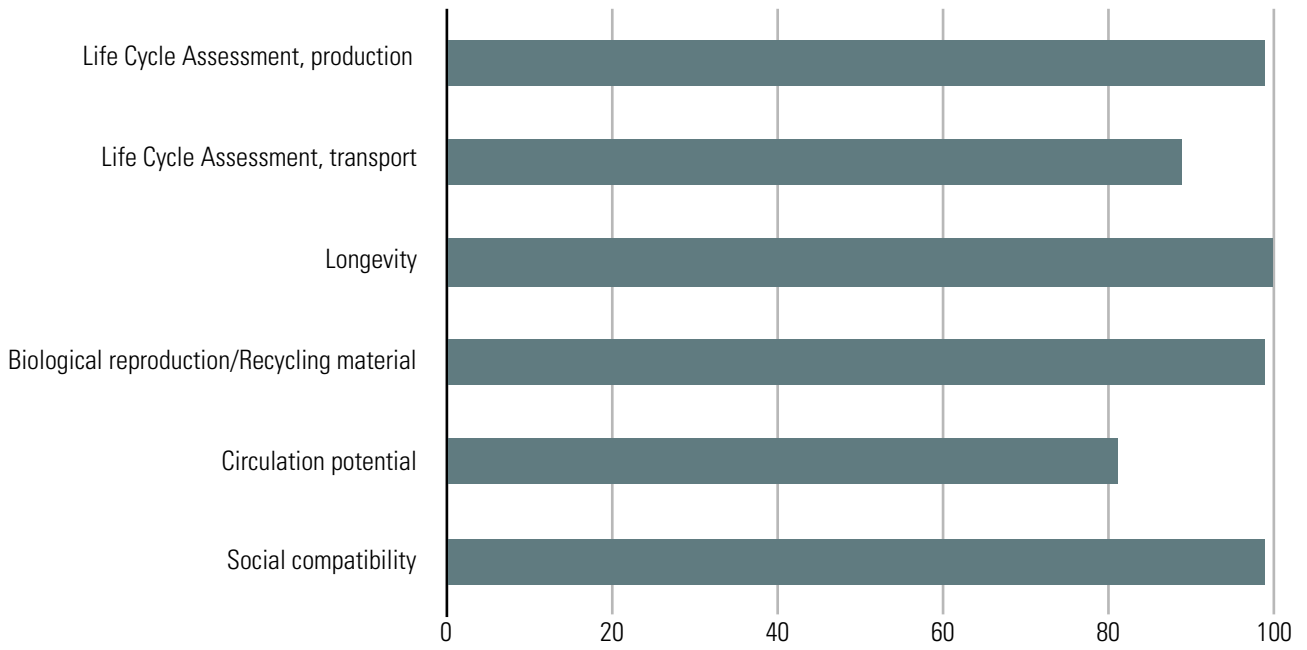
**ZEITRAUM**

RAIL  
Café, Snack, Dine

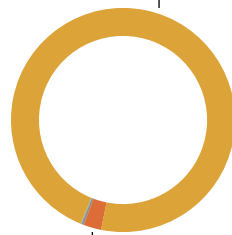
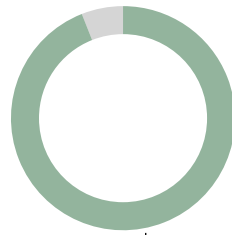
Kaschkasch, 2016



RAIL Café, 70x70; oak



- wood/wood based material
- steel
- natural oil
- PVAC adhesive



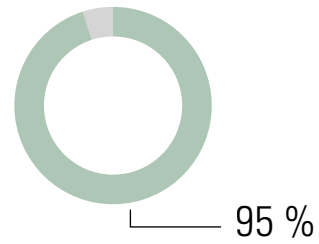
▬▬▬ Flat pack

<b>RAIL Café, 70x70; oak</b>	Material/Product rating				Weighted rating, %
	Oak	Steel	Natural oil, Osmo	PVAC	
Life Cycle Assessment, production	10	5,33	5	10	98,62415 %
Life Cycle Assessment, transport	9	4	9	6,5	88,677 %
Longevity	10	10	10	9	99,968 %
Biological reproduction/Recycling material	10	9	6	0	99,473 %
Circulation potential	8	10	10	4	80,512 %
Social compatibility	10	8	10	9	99,458 %
Average rating, $\bar{\sigma}$	9,5	7,721	8,333	6,416	Total weight
Share in kg	12,9	0,34	0,045	0,016	13,301
Share in %	96,98 %	2,55 %	0,33 %	0,12 %	
Weighted rating	9,213	0,196	0,027	0,007	
<b>Product rating in %</b>	<b>94,43</b>				

<b>Packaging</b>	Material/Product rating			Weighted rating, %
	Cardboard	PE fleece	PP strapping	
Life Cycle Assessment, production	10	3	5	95,991 %
Life Cycle Assessment, transport	9	6,5	6,5	88,5195 %
Longevity	4	5	5	40,577 %
Biological reproduction/Recycling material	6	0	0	56,478 %
Circulation potential	10	10	10	99,98 %
Social compatibility	10	9	10	99,448 %
Average rating, $\bar{\sigma}$	8,166	5,583	6,083	Total weight
Share in kg	5,3	0,3	0,03	5,63
Share in %	94,13 %	5,32 %	0,53 %	
Weighted rating	7,686	0,297	0,032	
<b>Product rating in %</b>	<b>80,15</b>			



## 1 Oak



**Tab. 1 A:** Material data sheet, oak, general<sup>12</sup>

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.

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

<sup>2</sup> 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, specific<sup>3</sup>

**General description**

Certifications/Information	FSC and PEFC on request	
<b>Life cycle assessment data hardwood, average (GER)</b>		<b>10</b>
<b>Resource input per kg</b>	<b>A1-A3</b>	
Total non-renewable primary energy (PENRT)	2,18 MJ	10
Use of freshwater resources (FW)	0,00048 m <sup>3</sup>	10
<b>Environmental impact per m<sup>3</sup></b>		
Global Warming Potential (GWP)	-1,74 Kg CO <sub>2</sub> -eqv.	10
<b>Environmental impact Transport, per 1000 kgkm (690 kg/m<sup>3</sup>)</b>		<b>9</b>
<b>Production site: Germany/ZEITRAUM</b>		
<b>Truck - ca. 300 km</b>	A4	10
Total non-renewable primary energy (PENRT)	362,4 MJ	
Use of freshwater resources (FW)	0,019164 m <sup>3</sup>	
Global Warming Potential (GWP)	26,907 Kg CO <sub>2</sub> -eqv.	
<b>Main raw material origin: Germany, Central Europe/Production site</b>		
<b>Truck - ca. 1500 km</b>	A4	8
Total non-renewable primary energy (PENRT)	1812 MJ	
Use of freshwater resources (FW)	0,09582 m <sup>3</sup>	
Global Warming Potential (GWP)	134,535 Kg CO <sub>2</sub> -eqv.	
<b>Sustainability Assessment</b>		
Longevity	Very durable/repairable (> 20 years)	10
Biological reproduction/ recycled material	100 %	10
Circulation potential	70 % - 99 % (technological/recycling)	8
Socially compatible	Yes	10
<b>Total average rating</b>		<b>9,5</b>
<b>Processing</b>		
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	

<sup>3</sup> BMI 2021: Oekobaudat. Database <[https://www.oekobaudat.de/no\\_cache/en/database/search.html](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	
<b>Natural durability DIN EN 350-2</b>	durable; sapwood low; heartwood durable; also in water; durability class 2	

### Physical properties

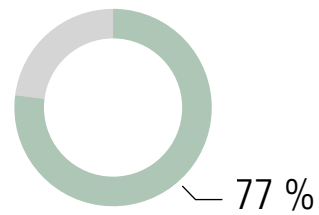
Kiln density (0 % wood moisture content)	390... 650... 930 kg/m <sup>3</sup>	
Bulk density (12 - 15 % wood moisture)	430... 690... 960 kg/m <sup>3</sup>	
Pore ratio	ca. 57 %	
Shrinkage rate at 1 % moisture reduction	radial - 0,20 %; tangential - 0,32 %; volume - 0,45 %	

### Mechanical properties

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



## 2 Steel



**Tab. 2 A:** Material data sheet, steel, general<sup>4</sup>

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

<sup>4</sup> 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. 2 B:** Material data sheet, steel, specific<sup>56</sup>

**General description**

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

**Sustainability Assessment**

<sup>5</sup> BMI 2021: Oekobaudat. Database <[https://www.oekobaudat.de/no\\_cache/en/database/search.html](https://www.oekobaudat.de/no_cache/en/database/search.html)> Accessed, on 10/27/2021

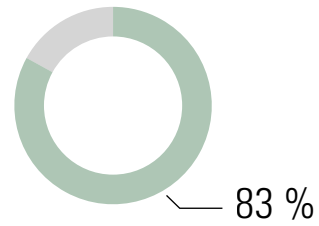
<sup>6</sup> MATERIALARCHIV (2019) - Materialarchiv <<http://www.materialarchiv.ch/app-tablet/#search>> Accessed, on 03/01/2019



Longevity	Very durable/repairable (> 20 years)	10
Biological reproduction/ recycled material	80 - 90 %	9
Circulation potential	100 % (technological)	10
Socially compatible	Yes	8
<b>Total average rating</b>		<b>7,72</b>
<b>Notes</b>	The life cycle assessment of iron improves the more often the material has been recycled or the proportion of recycled material increases	



### 3 Osmo, hard wax oil



**Tab. 3 A:** Material data sheet, Osmo, hard wax oil, general<sup>78</sup>

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

<sup>7</sup> KALWEIT A. (2012) - Handbook of technical product design - materials and manufacturing. Berlin: Springer Verlag

<sup>8</sup> Osmo (2019) - Osmo Hard Wax Oil 3032 satin, 3062 matte <<https://www.osmo.de>> Accessed, on 03/02/2019

**Tab. 3 B:** Material data sheet, Osmo, hard wax oil, specific<sup>910</sup>

<b>General description</b>		
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)	
<b>Life cycle assessment data hard wax oil (GER)</b>		<b>5</b>
<b>Resource input per kg</b>	<b>A1-A3</b>	
Total non-renewable primary energy (PENRT)	n.a.	
Use of freshwater resources (FW)	n.a.	
<b>Environmental impact per kg</b>	<b>A1-A3</b>	
Global Warming Potential (GWP)	n.a.	
<b>Environmental impact Transport, per 1000 kgkm</b>		<b>9</b>
<b>Production site: Germany/ZEITRAUM</b>		
<b>Truck - ca. 200 km</b>	A4	10
Total non-renewable primary energy (PENRT)	172,12 MJ	
Use of freshwater resources (FW)	0,012106 m <sup>3</sup>	
Global Warming Potential (GWP)	12,822 Kg CO <sub>2</sub> -eqv.	
<b>Main raw material origin: n.a./production site</b>		
<b>n.a. - ø 3000 km</b>	A4	8
Total non-renewable primary energy (PENRT)	3624 MJ	
Use of freshwater resources (FW)	0,19164 m <sup>3</sup>	

<sup>9</sup> BMI 2021: Oekobaudat. Database <[https://www.oekobaudat.de/no\\_cache/en/database/search.html](https://www.oekobaudat.de/no_cache/en/database/search.html)> Accessed, on 10/27/2021

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

Global Warming Potential (GWP)	296,07 Kg CO <sub>2</sub> -eqv.	
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**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
<b>Total average rating</b>		<b>8,33</b>

**Processing**

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

**Properties**

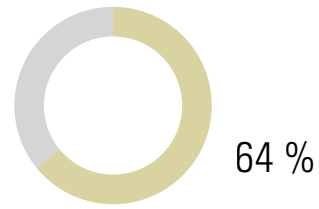
Density	0,89 g/cm <sup>3</sup>	
Viscosity	Thixotropic, creamy	
Consistency	Medium viscosity	
Moisture resistance	Good	

**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)



## 4 PVAc dispersion adhesive, D3



**Tab. 4 A:** Material data sheet, PVAc dispersion adhesive, D3, general<sup>1112</sup>

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

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

<sup>12</sup> KEIBERIT (2019) - KLEIBERIT 303, D3, PVAc Adhesive <[https://interior-construction.kleiberit.com/fileadmin/Content/Documents/DE/Infoblaetter/303\\_D3\\_Leim\\_D.pdf](https://interior-construction.kleiberit.com/fileadmin/Content/Documents/DE/Infoblaetter/303_D3_Leim_D.pdf)> Accessed, on 02/03/2019

**Tab. 4 B:** Material data sheet, PVAc dispersion adhesive, D3, specific<sup>1314</sup>

**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

<b>Resource input per kg</b>	<b>A1-A3</b>	
Total non-renewable primary energy (PENRT)	26,7 MJ	10
Use of freshwater resources (FW)	0,00758 m <sup>3</sup>	10
<b>Environmental impact per kg</b>	<b>A1-A3</b>	
Global Warming Potential (GWP)	0,955 Kg CO <sub>2</sub> -eqv.	10

**Environmental impact Transport, per 1000 kgkm** 6,5

**Production site: Germany/ZEITRAUM**

<b>Truck - ca. 200 km</b>	A4	10
Total non-renewable primary energy (PENRT)	172,12 MJ	
Use of freshwater resources (FW)	0,012106 m <sup>3</sup>	
Global Warming Potential (GWP)	12,822 Kg CO <sub>2</sub> -eqv.	

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

<b>n.a. - ø &gt; 7000 km</b>	A4	3
Total non-renewable primary energy (PENRT)	8456 MJ	
Use of freshwater resources (FW)	0,44716 m <sup>3</sup>	
Global Warming Potential (GWP)	627,83 Kg CO <sub>2</sub> -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

<sup>13</sup> BMI 2021: Oekobaudat. Database <[https://www.oekobaudat.de/no\\_cache/en/database/search.html](https://www.oekobaudat.de/no_cache/en/database/search.html)> Accessed, on 10/27/2021

<sup>14</sup> 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	
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**Properties**

Density	1,1 g/cm <sup>3</sup>	
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PH level	3	
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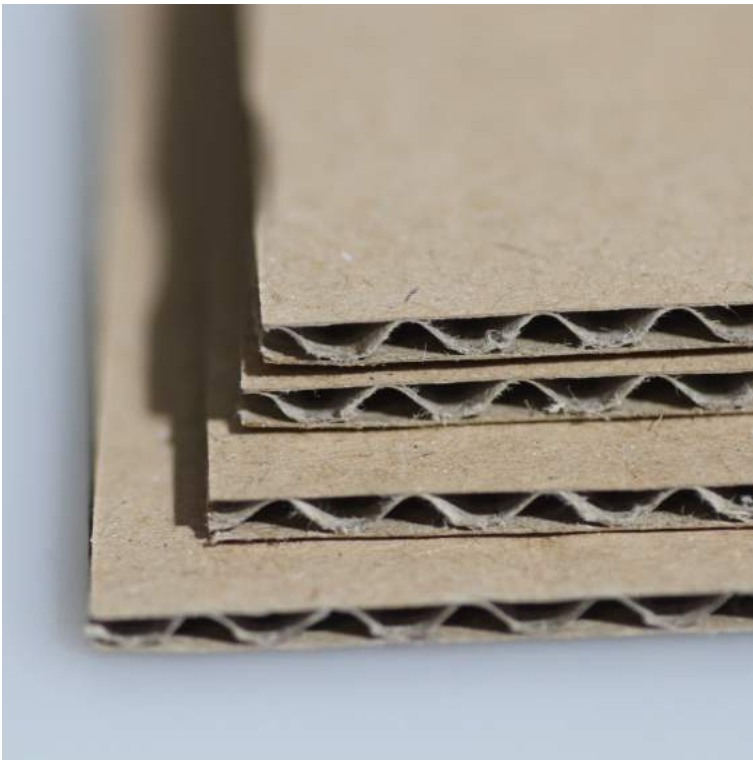
Consistency	Medium viscosity	
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Moisture resistance	D3	
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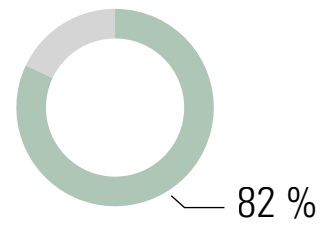
Heat resistance	Up to 120 °C	
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**Notes**

PVAc adhesive is available solvent-free and solvent-based	
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## 5 Cardboard, beds, tables & storage



**Tab. 5 A:** Cardboard, beds, tables & storage, general

Material group	Packaging
Name	Cardboard (GB, US); Karton (D)
Manufacturer	Monowell GmbH & Co. KG
Manufactured in	Germany (GER)
Use	Packing material for individual wrapping of the furniture



**Tab. 5 B:** Cardboard, beds, tables & storage, specific<sup>1516</sup>

**General description**

Certifications/Information	ISO 9001, ISO 50001, ISO 22000 DE, ISO 22000 EN, FSC	
Color	Brown	
Texture	matt	
Contents		
60 %	Recycled paper	
40 %	Primary raw material	

**Life cycle assessment data „Kraftpapier“ (GER)** 10

<b>Resource input per kg</b>	<b>A1-A3</b>	
Total non-renewable primary energy (PENRT)	5,888 MJ	
Use of freshwater resources (FW)	0,004899 m <sup>3</sup>	

<b>Environmental impact per kg</b>	<b>A1-A3</b>	
Global Warming Potential (GWP)	-0,8973 Kg CO <sub>2</sub> -eqv.	

**Environmental impact Transport, per 1000 kgkm** 9

**Production site: Germany/ZEITRAUM**

<b>Truck - ca. 200 km</b>	A4	10
Total non-renewable primary energy (PENRT)	172,12 MJ	
Use of freshwater resources (FW)	0,012106 m <sup>3</sup>	
Global Warming Potential (GWP)	12,822 Kg CO <sub>2</sub> -eqv.	

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

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

**Sustainability Assessment**

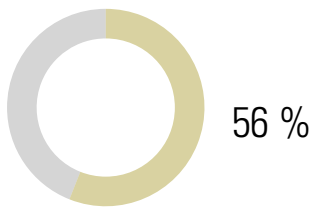
Longevity	Moderately durable/repairable (< 10 years)	4
Biological reproduction/ recycled material	60 %	6
Circulation potential	100 % (technological)	10

<sup>15</sup> BMI 2021: Oekobaudat. Database <[https://www.oekobaudat.de/no\\_cache/en/database/search.html](https://www.oekobaudat.de/no_cache/en/database/search.html)> Accessed, on 10/27/2021

<sup>16</sup> MATERIALARCHIV (2019) - Materialarchiv <<http://www.materialarchiv.ch/app-tablet/#search>> Accessed, on 03/01/2019

Socially compatible	Yes	10
<b>Total average rating</b>		<b>8,16</b>
<b>Disposal note</b>	Waste paper	

## 6 Polyester fleece



**Tab. 6 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. 6 B:** Material data sheet, polyester fleece, specific<sup>1718</sup>

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

<sup>17</sup> BMI 2021: Oekobaudat. Database <[https://www.oekobaudat.de/no\\_cache/en/database/search.html](https://www.oekobaudat.de/no_cache/en/database/search.html)> Accessed, on 10/27/2021

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

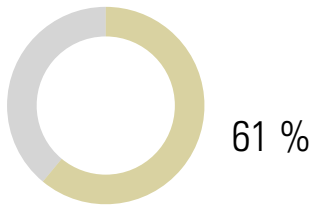
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**Disposal note**

Recyclable waste

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## 7 PP strapping



**Tab. 7 A:** Material data sheet, PP strapping, general

Material group	Packaging
Name	TEWE® Polypropylene strapping
Material abbreviation	PP
Manufacturer	Teufelberger
Manufactured in	Austria (AT)
Use	Packing material for protection

**Tab. 7 B:** Material data sheet, PP strapping, specific<sup>1920</sup>

**General description**

Certifications/Information	ISO 9001, ISO 14001	
<b>Life cycle assessment data Comparative material for PP (no data available) (GER)</b>		<b>5</b>
<b>Resource input per kg</b>	<b>A1-A3</b>	
Total non-renewable primary energy (PENRT)	n.a.	
Use of freshwater resources (FW)	n.a.	
<b>Environmental impact per kg</b>	<b>A1-A3</b>	
Global Warming Potential (GWP)	n.a.	
<b>Environmental impact Transport, per 1000 kgkm (approx. 0.5 kg/m<sup>2</sup>)</b>		<b>6,5</b>
<b>Production site: Austria/ZEITRAUM</b>		
<b>Truck - ca. 300 km</b>	<b>A4</b>	<b>10</b>
Total non-renewable primary energy (PENRT)	362,4 MJ	
Use of freshwater resources (FW)	0,019164 m <sup>3</sup>	
Global Warming Potential (GWP)	26,907 Kg CO <sub>2</sub> -eqv.	
<b>Main raw material origin: n.a./production site</b>		<b>3</b>
<b>n.a. - ø &gt; 7000 km</b>	<b>A4</b>	
Total non-renewable primary energy (PENRT)	8456 MJ	
Use of freshwater resources (FW)	0,44716 m <sup>3</sup>	
Global Warming Potential (GWP)	627,83 Kg CO <sub>2</sub> -eqv.	
<b>Sustainability Assessment</b>		
Longevity	Durable (10 - 20 years)	<b>5</b>
Biological reproduction/ recycled material	0 %	<b>0</b>
Circulation potential	100 % (technological)	<b>10</b>
Socially compatible	Yes	<b>10</b>
<b>Total average rating</b>		<b>6,08</b>
<b>Disposal note</b>	Recyclable waste	

<sup>19</sup> BMI 2021: Oekobaudat. Database <[https://www.oekobaudat.de/no\\_cache/en/database/search.html](https://www.oekobaudat.de/no_cache/en/database/search.html)> Accessed, on 10/27/2021

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

Information on all materials used by ZEITRAUM  
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