# Wilkhahn





### AT. AT Mesh.

The smart all-rounder for dynamic sitting.

Wilkhahn's free-to-move concept, powered by Trimension®, sets global standards in healthy, three-dimensional dynamic sitting. The AT range stands apart for its harmonious, intuitive design and large range of variants. Just sit down, adjust the seating height and you're done!

Whatever the posture people adopt, automatic weight adjustment and the seat shell's self-centering suspension mean bodies maintain their center of gravity. These are ideal chairs for today's flexible workspaces and hot desking.

Design: Wilkhahn

The seat shell's self-centering suspension and automatic weight adjustment intuitively maintain bodies' centers of gravity, without any personal adjustments required. Each component works hand and hand to produce an organic shape that translates into fluid, natural movements.



Task chair 187/71 and 187/7.

The AT's free-to-move capability provides support and allows people to relax and sit back. It stimulates body and mind, making office work healthier and more productive.



Swivel chair 187/9 and Occo swivel chairs 222/31.

In combination with table and conference chair ranges based on the same integrative design principles, design solutions emerge from a single source – as seen here with the Occo range.



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AT Mesh task chairs 187/71.

The models with mesh-covered backrests adapt perfectly to diverse body shapes and ensure visual transparency.



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Swivel chair 187/9.

If the office chair is assigned to a specific user, the automatic weight adjustment can be adjusted to individual comfort preferences using a 10-step presetting.





AT ESP 187/72 task chair.

The models with elevated sitting positions (ESP from 430-610 mm) encourage people to alternate between sitting down and standing up at tables and desks.

# "Sitting higher makes standing up easier"



### AT with ESP (elevated seat position) for standing/sitting dynamics

Electrically height-adjustable desks encourage movement in the office, but switching between sitting and standing is often too much effort.

That is why Wilkhahn offers variants with ESP, which combine the health benefits of the patented Free-to-move kinematics with the promotion of standing-sitting dynamics



AT ESP 187/72 office chair

AT ESP allows users to incorporate sitting, standing and perching into their workflow.



AT 187/1 counter chair

# Empowering users.

### Counter chairs at high-table height in receptions and project offices.

The AT as a height-adjustable counter chair with a configurable foot ring isn't just used at counters. It's also ideal for contemporary project spaces with high tables – and everyone's the same height whether sitting or standing.



AT Mesh counter chair 187/11 at an Occo table 222/91 at standing height

A pleasing design and diverse model options make the AT a flexible all-rounder.

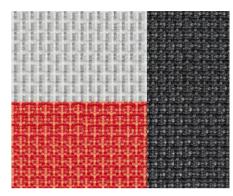




The backrest shell also comes with an optional cover at the back.



If a transparent look, good airflow and the ability to adapt to different shapes of back are required, the AT Mesh model is the right choice.



The AT Mesh is covered in Vivid upholstery material, up to 80% of which is recycled from PET bottles, OEKO-TEX standard 100, crade-to-cradle certified (bronze).



The intricate stitching on the side facings of the models upholstered with leather underscores the elegantly sweeping contour of the seat and backrest.



The height of the 1D armrests is adjustable at the touch of a button. As an option, 3D armrests can offer extra depth and width adjustment – and the 4D variant also pivots by 25°.



Users can just pull the optional lumbar support to adjust its height by 6 cm and, on request, also turn a knob to change the depth by up to 1.5 cm.



AT models with upholstered backrests have a lumbar support whose height can be adjusted by 60 mm.

A pleasing design and diverse model options make the AT a flexible all-rounder.





Icons on the controls illustrate their purpose. The lever adjusts the sitting height precisely and the knob optionally alters the seat depth with ease while users remain seated.



To maintain the perfect setting, the optional forward seat tilt synchronously raises the backrest and lumbar support.

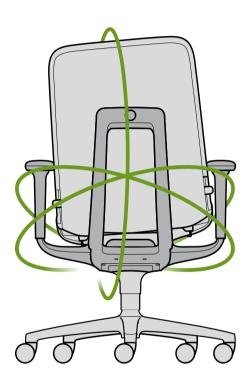


The push button underneath the seat on the left locks the chair in a neutral position. And users can also turn the knob to optionally pre-adjust settings in ten increments to suit preferences.



The AT Mesh models also come with a heightadjustable headrest that can also tilt and color matches the frame and cover on the backrest.

### AT. Free-to-move, powered by Trimension®.

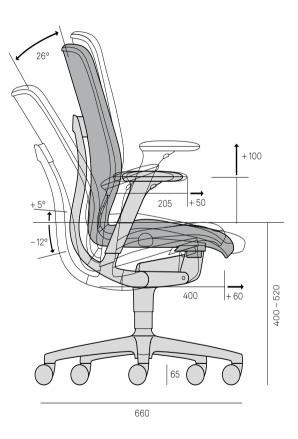


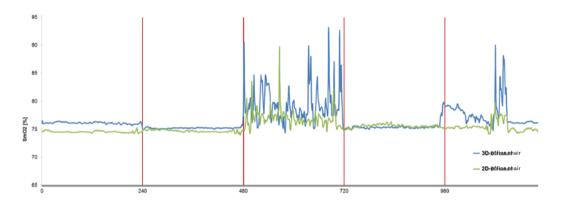
# MORE ACTIVE, MORE DYNAMIC, HEALTHIER.

All health experts agree that our whole body needs movement to function properly. But sitting still for long periods of time will harm our bodies in the long term. Primarily, it's the three-dimensional movement of the hips that has the biggest effect on a healthy metabolism. For this reason, Wilkhahn joined forces with the German Sport University Cologne to develop free-to-move kinematics, which prompts people to move their bodies in all directions while sitting down.

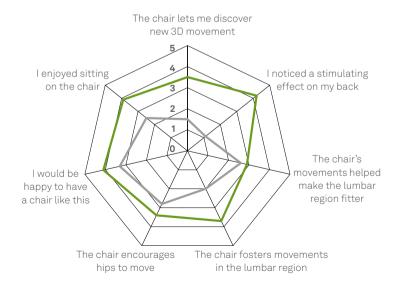
Several scientific case studies corroborated the healthy, performance-enhancing effects of the free-to-move ON, IN and AT office chairs.

These chairs encourage users to move intuitively, more frequently and in different ways. Therefore, the chair boost their feeling of wellbeing, powers of concentration and the metabolism of the muscles in the lumbar region (which is very often plagued by backache).





The metabolism of muscles in the lumbar region is much more active when people sit on the 3D dynamic office chair.



Comparison of results from the questionnaire about sitting on the 3D and 2D dynamic office chair

### More movement in sedentary workspaces

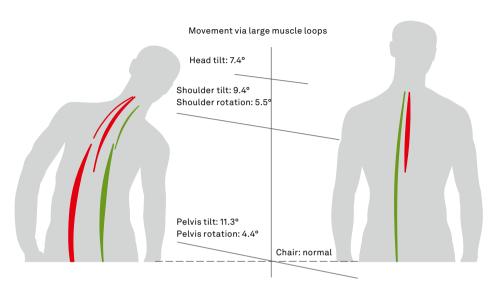
A study on the impact of Trimension® 3D kinematics on dorsal muscles, the range of motion and physiological stimulation

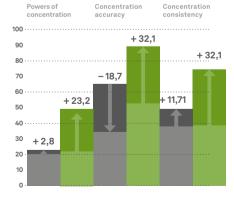
Based on standardized office processes (static and dynamic), new measurement methods were applied to examine metabolic activity in the particularly important muscles in the lumbar region.

The results measured while people were sitting on the IN free-to-move office chair were compared with those of people sitting on the very good Neos 2D dynamic office chair.

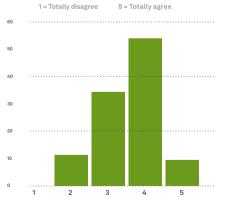
#### Results:

- The test persons used the whole threedimensional range of motion that Trimension® offers.
- When people lean sideways, there are significant differences between a 2D synchro-adjustment mechanism and Trimension®.
- Importantly, people sitting on an IN freeto-move office chair alternate between tensing and relaxing their muscles to a greater extent than on the chair used as a comparison.
- The test persons rated the free-to-move office chair better on all criteria.





The control group (gray) with conventional office chairs and trial group (green) with 3D dynamic ON® chairs over a period of three months



My physical fitness has improved thanks to ON® over the past 11 months.

### A new approach to ergonomics in the office

### Lab study:

The lab study examined how the concept correlated with our bodies, the biomechanical impact and the subjective feeling of comfort that Trimension® provides in the ON® office chair.

#### Results:

- Pressure is distributed evenly while people are sitting down and perceived to be very comfortable.
- Some 90% of the test persons would like this sort of sitting concept in their workplace. By motivating people to bend,

# Three-dimensional dynamic sitting for better performance in offices

### Comparative field study:

The test examined whether, alongside wellbeing, sitting on the free-to-move chair also boosts productivity. The study was carried out with 80 test persons in an insurance company's office complex over a period of 12 weeks. Recognized, standard tests and questionnaires were used to identify powers of concentration.

#### Results:

 Compared with the control group, the metrics used to gauge the free-to-move group's powers of concentration had imstretch, lean sideways and rotate their pelvis, Trimension® stimulates the body to engage in a range of natural movements where the head, shoulder and pelvis form a functioning unit when moving with the chair.

 In addition to the large muscle loops, the physiological rotation of the torso activates the muscles deep in the back which are key to stabilizing the spine.

proved in every respect at the end of the three months.

- After a short space of time, the free-tomove group got used to and were confident about applying the new movement options.
- Thanks to the new sitting approach, the free-to-move group's wellbeing didn't just improve in relative but also in absolute terms.



187/7 Task chair, medium-high backrest



187/8 Task chair, high backrest



187/9 Task chair, high backrest with headrest and neck rest



187/71
Task chair, medium-height, mesh-covered backrest

# AT. Models.



187/72 Task chair ESP (elevated sitting position), medium-height backrest

187/73

Task chair ESP (elevated sitting position), medium-height, mesh-covered backrest

Counter chair, medium-height backrest

187/11
Counter chair, medium-height, mesh-covered backrest

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# AT. Designs.



The digital sample colors differ from the originals.

You can find all upholstery material and more colors in our material library.

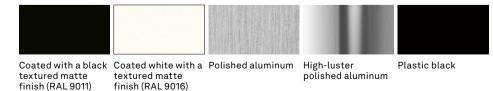
### Seat-backrest element, synchro-adjustment mechanism, gas lift cover, armrests



### Upholstery materials seat



### Frame surfaces



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# AT Mesh. Designs.



The digital sample colors differ from the originals.

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### Seat-backrest element, synchro-adjustment mechanism, gas lift cover, armrests

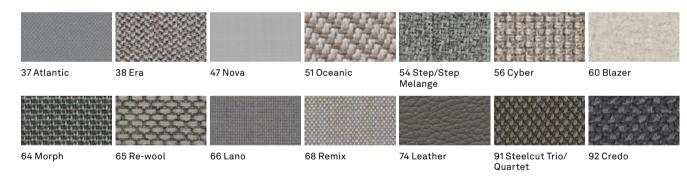


### upholstery materials backrest

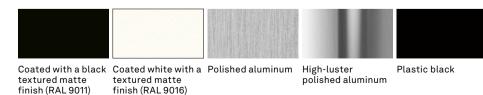


34 Vivid

### Upholstery materials seat



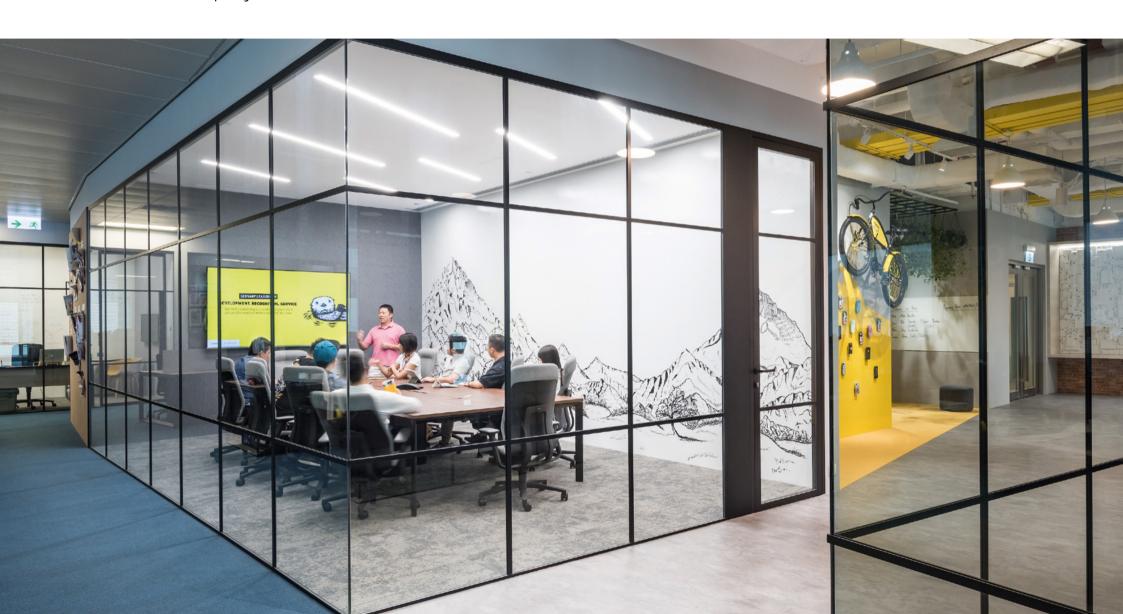
### Frame surfaces



AT. Reference projects. Model 187/7, object: human unlimited, Düsseldorf, Germany, photo: Peter Kalte



AT. Reference projects. Model 187/7, object: Otter Products, Hong Kong, photo: Scott Brooks

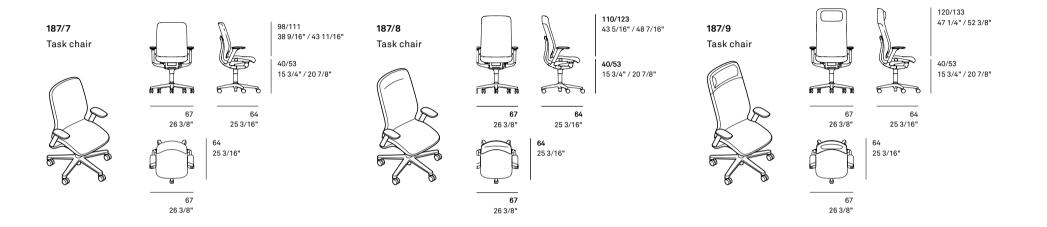


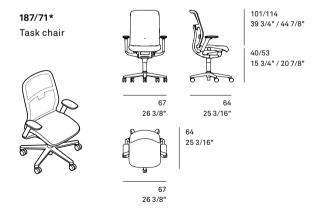
AT. Reference projects. Model 187/7, object: CBRE The Core, Amsterdam, the Netherlands, photo: Stijnstijl Fotografie



AT. Reference projects. Model 187/7, object: human unlimited, Düsseldorf, Germany, photo: Peter Kalte



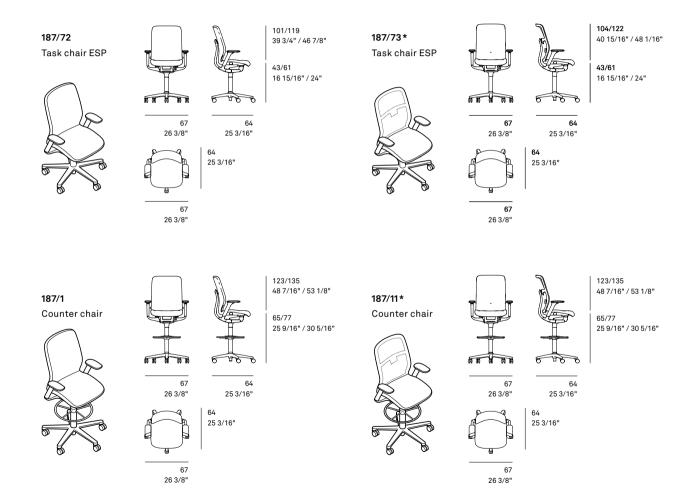




\* A headrest changes AT Mesh's total height by 15 cm to 25 cm.

All sizes in metric and imperial measurements. Subject to change.

### AT. Models and dimensions.



\* A headrest changes AT Mesh's total height by 15 cm to 25 cm.

All sizes in metric and imperial measurements. Subject to change.

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### AT. Technical details.

Free-to-move office task chair with Trimension®, integrated synchronously supporting 3D kinematics. The self-centering suspension of the seat shell is combined with automatic weight adjustment and the chair optionally comes with the ability to preset the automatic weight adjustment in ten increments to suit personal preferences. Trimension® activates the natural range of motion the human pelvis is capable of and which matches the way the joints function, from flexing, extending, leaning sideways or rotating the pelvis. When moving synchronously backwards and forwards, the tilt angle ranges from 12° in the seat and up to 26° in the backrest, optionally with a 3D forward tilt of up to 5° that can be activated. during which the backrest is raised synchronously by 25 mm so that the lumbar support is always in the right position. The seat and back can be tilted sideways from the horizontal by up to 12°. At the same time, the counter pressure adjusts automatically to any posture or movement so that the body always maintains its center of gravity.

AT is ideal for people weighing from 45 to  $140\,\mathrm{kg}$ .

The backrest has height-adjustable lumbar support (adjustable in ten lockable positions up to 60 mm). The backrest and seat can be locked in a neutral horizontal 0-position, the optional 5° 3D forward tilt can be activated by lifting the seat and back.

Pressing a tab allows precision-adjustable seating height of between 40 and 53 cm via a gas lift compliant with DIN 4550, optionally with contact suppression feature, then the seating height is 42 cm - 53 cm.

Seat depth: 43 cm, optionally integrated precision-adjustable seat-depth extension of 39 cm to 45 cm while users are sitting down.

The height of models with elevated sitting positions (ESP) are precision-adjustable between 43 and 61cm, and the counter chairs between 65 cm and 77 cm.

### Frame

#### Task chairs

Five-star base made of black through-dyed, fiberglass-reinforced polyamide, optionally of die-cast aluminum, coated, polished or high-luster polished. Twin-wheel swivel casters with load-dependent braking, made of black DIN EN12529-compliant polypropylene as the standard version for carpets, optionally with gray tire made of polyurethane for hard flooring. Casters optionally electrically conductive.

The gas lift is covered by a telescopic protective tube made of black or white through-dyed polypropylene (does not apply to the ESP version). The mechanism shell is made of black or white through-dyed, fiberglass-reinforced polyamide with a cover made of black or white through-dyed polypropylene.

The backrest bearer to accommodate the seat and backrest is made of black or white through-dyed, fiberglass-reinforced polyamide with a central steel joint.

### Counter stool

With extra height-adjustable foot ring, bright chrome-plated, with lock screw to affix it and twin-wheel swivel casters with load-dependent braking.

#### Seat and back

Models 187/7, 187/8, 187/9, 187/72, 187/1 Unitary and very elastic self-centering seat and backrest shell suspended on the backrest bearer made of black or white through-dyed glass-bead reinforced polypropylene.

Three backrest heights (medium height, advanced height, advanced height with headrest and neck rest), backrest shell optionally covered with fabric or leather, neck rest made of polyurethane foam, covered in black or grav leather. When leather 74 is chosen, in the same material and color as the backrest cover. Seat and back cushioning made of polyurethane with CFC-free foam, as replaceable upholstery element with covers from the Wilkhahn fabric and leather collection. Ergonomic, with seat cushioning with higher edges at the sides, made of molded foam, covers without side facings. When optional soft padding is chosen, more defined edges because of the higher quantity of foam and all fabric covers with facings at the side are in the same material and color.

With optional seat-depth extension from 39 to 45 cm that is precision adjustable by turning a knob. Then standard or soft padding with side facings in Atlantic, colormatched when covered in Atlantic fabric, in black or platinum gray for all other fabrics. Leather for all types of upholstery with facings all the way round in the same material and color.

Optional plastic lumbar support between the seat and backrest shell and back cushioning, height-adjustable by 6 cm in eight lockable positions.

#### AT Mesh models 187/71, 187/73, 187/11

The seat and backrest element is suspended in a self-centering manner on the backrest bearer and the back is a mesh-covered frame. The mesh is made of 80% post-consumer-recycled polyester and 20% elastomer. The backrest frame is made of black or white, through-dyed, fiberglass-reinforced polyamide, which is screwed to the seat shell made of black or white through-dyed, glass-bead reinforced polypropylene, with a seat shell and backrest frame made of black or white through-dyed plastic with a polypropylene seat upholstery panel.

Seat cushioning made of polyurethane with CFC-free foam, as replaceable upholstery element with covers from the Wilkhahn fabric and leather collection.

Ergonomic, with seat cushioning with higher edges at the sides, made of molded foam, covers without side facings. When optional soft padding is chosen, more defined edges because of the higher quantity of foam and all fabric covers with facings at the side are in the same material and color. With optional seat-depth extension from 39 to 45 cm that is precision adjustable by turning a knob. Then standard and soft padding with side

facings in Atlantic, color-matched when the fabric cover is Atlantic, optionally in black (37/99), anthracite (37/25) and light gray (37/95) for all other fabrics.

Leather for all types of upholstery with facings all the way round in the same material and color.

Optionally with a polypropylene lumbar support, which is in black or white to match the color of the frame and height-adjustable by 6 cm in six lockable positions, optionally additionally adjustable in depth by up to 1.5 cm by turning a knob made of fiberglass-reinforced polyamide that is retrofittable at any time.

Optional backrest frame with an upholstered headrest in the same color as the frame in through-dyed, fiberglass-reinforced polyamide, height-adjustable by 6 cm in 6 lockable positions and can be tilted forward in 4 lockable positions by up to 125° (depth adjustable by up to 5 cm). Cover in the same material and color as the backrest or in black.

### Optional armrests

Armrests made of fiberglass-reinforced, black or white through-dyed polyamide with armrest pads made of gray or black through-dyed polypropylene, optionally with armrest pads made of gray or black through-dyed polyurethane foam.

The height of 1D armrests can be adjusted in ten lockable positions by 100 mm, the depth of the armrest pads on 3D armrests can be adjusted by 50 mm and the width by 25 mm in each case, 4D armrests can also be pivoted inward and outward by 25°.

### Standards

The AT task chairs comply with the type A DIN EN1335 office-chair, ANSI/BIFMAX5.1 and IGR standards.



ID 1111247739





All components used to adjust the chair (slide buttons and levers to adjust and lock the height, components for adjusting the lumbar support and pull-out knob for optional seat-depth extension) are made of gray through-dyed plastic.

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# AT. Environmental product information.



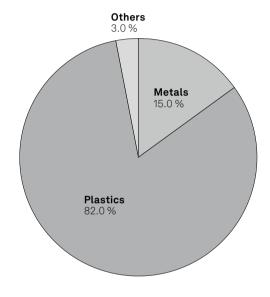
### Materials.

# Material composition for model 187/7 AT task chair

	[Kg]	[%]
Metals	2.70	15.0
Steel	2.60	15.0
Aluminum	0.10	0.0
Plastics	14.20	82.0
Polypropylene (PP)	9.07	52.0
Polyamide (PA)	3.79	22.0
Polyurethane (PUR/TPU)	0.96	6.0
Polyester	0.37	2.0
Others	0.50	3.0
Upholstery materials (e. g. wool)	0.50	3.0
Total weight	17.30	100.0
Recycling proportion Recycling capability	3.80 15.40	22.0 89.0

Not recyclable: Powder varnish

Materials are subject to stringent checks. As part of an ABC analysis, the materials are checked to ensure they are environmentally friendly and not harmful to health. Prohibited chemicals are not used in the product at all. All feedstock is listed in a register of hazardous substances. This helps to minimize the use or allow the substitution of any potentially harmful materials.



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# AT. Environmental product information.



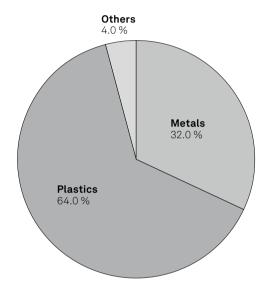
### Materials.

Material composition for model 187/71 AT Mesh task chair (Aluminum star base, leather seat)

<b>Metals</b> Steel Aluminum	[kg] <b>5.70</b> 2.60 3.00	[%] <b>32.0</b> 15.0 17.0
Plastics Polypropylene (PP) Polyamide (PA) Polyurethane (PUR/TPU) Polyester	<b>11.10</b> 4.80 5.60 0.60 0.20	64.0 28.0 32.0 3.0 1.0
Others Upholstery materials (e. g. wool) Powder coating	<b>0.60</b>	<b>4.0</b> 4.0
Total weight Recycling proportion Recycling capability	17.40 4.30 16.80	100.0 25.0 97.0

Not recyclable: Powder varnish

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### AT. Environmental product information.

### Certificates product/standards









The AT task chairs comply with the DIN EN 1335, ANSI/BIFMA X 5.1., GS, IGR and AGR standards.

### Company's certificates, memberships















### Certificates/awards product















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### Wilkhahn and sustainability.



In over 100 years of its corporate history, Wilkhahn can look back on a sustainability philosophy that has grown over decades. Aspects such as durability, social fairness, environmental responsibility and cultural orientation have been evolving as corporate principles since the 1950s. Wilkhahn today is regarded internationally as a model of excellence, not only on account of its products but also because of its modern corporate philosophy. This is because the company realized early on that sustainable design should embrace environmental aspects, improve social relationships and define the cultural role of a company. This approach to the way we do business creates a bond between us and our customers throughout the world. There is surely no more rewarding task than working together for a successful future that is worth living in.

Lurrent sustainability report with environmental statement









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# For further information please contact us!



# Wilkhahn

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Roof of one of the four pavilions, which were designed by architect Frei Otto, on the Wilkhahn site.

Photo: Klemens Ortmeyer