

## ARA orangebox

# ARA

## Great design

is when there's nothing left to take away.



Design Gerard Taylor with Orangebox Design Team

### Ara is a chair of refined performance, comfort and support

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that redefines our perspective on sustainability.



## 98% recyclable, but that's not the point.

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Equally important is the ability to support recyclable products with better systems for recycling.

Whenever we recycle, we need to retain the value in the materials themselves and the resources invested in making them.

We believe the answer lies in manufacturing with closed loop cycles. These encourage true re-cycling rather than the still damaging process of down-cycling materials, which is one step closer to landfill.

Ara is the first task chair developed and manufactured in Europe to achieve Cradle to Cradle accreditation.

#### Comfort re-invented.

We wanted to make Ara as simple as we could, both visually and functionally. But simple doesn't come easily. Our first challenge was to mate the frame and the back

Our first challenge was to mate the frame and the back membrane simply but firmly, **without fasteners, or fuss**. An innovative interference fit between the two parts delivers our ultimate goal – visual simplicity and a construction that's designed for disassembly and recycling when the time comes.

The design of the adaptive elastomer membrane was another simple solution to a more complex question. How could we make a back that looks great, uses less material and is extremely comfortable while delivering continuous support?

The pattern in the membrane not only gives the chair its distinct visual character, it also promotes airflow through the back.

#### We love aluminium.

Its got everything. Great looks. Impressive structural performance and recyclability with almost no loss of quality, so we can use nearly 100% recycled content. Die casting the vertebra in a single piece of aluminium keeps part count and material variation to a minimum.

The vertebra's organic form is deliberately influenced by nature's designs for skeletal structures. It's economic with material and at the same time, incredibly strong and effortlessly stylish.





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## Arm support that's there only when you need it.

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Knowing that sometimes you want to get closer to your desk, Ara's soft-touch arm pads can be rotated out of the way when required. To prevent any unexpected movement when getting up out of the chair, they automatically lock in the forward position.

Traditional polyurethane (PU) arm pads, some of ours included, are commonly moulded over an internal support plate, resulting in a composite part that can be problematic to recycle. Getting the plate out is one thing and reusing the PU is another.

Our goal was to design a new arm pad that was more comfortable than ever, using materials that could be separated easily and recycled more effectively.

The traditional PU is replaced by a flexible polymer with a separate insert made from recycled foam. The result is an armrest that's robust, easy to use and probably the most comfortable we've ever made.

## Do something really simple; make the chair base 100% recyclable.

The base isn't the most complicated part on a task chair, although some do look much better than others. We asked ourselves the question, aren't all plastic chair bases pretty much the same?

In one sense they are and with very few exceptions they all have a metal collar moulded into the plastic to stop the gas lift creeping through the base. This is great for not dragging your chair across the carpet but not so great when you come to recycle it, as the collar can be very difficult to remove.

Smart design and careful material selection have enabled us to create a base without a collar insert. That means that unlike almost all other plastic bases, ours is 100% recyclable. And rest assured we've tested it like mad, so you can be sure there'll be no dragging yourself across the carpet.



### The clever, flexible bit.

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Ara's character and performance are defined by the design of the chair's adaptive elastomer membrane. The rigid outer frame supports the membrane with a posturally correct 'S' shape and its flexibility allows it to adjust automatically to the profile of your back.

The elastomeric membrane accommodates different shapes and sizes and responds subtly to changes in your back profile as you perform different tasks.

So whether you're reaching forward to type, turning sideways to talk to a colleague or reclining while on the phone, you'll always feel comfortable and supported.

#### Comfort and posture support combined.

One of our toughest challenges is to offer refined seat comfort without compromising good posture, so our seat cushion is carefully shaped.

Foam thickness has been maximised in the rear section and balanced with a gently sloping profile at the front, encouraging better posture and maximising blood flow to the legs.

Experience also tells us that seat cushions get softer over time as the cellular structure inside the foam relaxes, so **we've done this work for you**. Squeezing the cushions flat straight after they're moulded ensures they're as soft as they can be, yet strong enough to support you throughout the working day.

## The key to a great chair is really great movement.

The most important function of a task chair is your comfort and well being. Ara's synchronous mechanism delivers a smooth, balanced movement from impressively refined engineering.

Why synchronous? Quite simply, we've always felt that the action of seat and back moving together in this way provides a natural, intuitive ride. Proven ergonomic research also tells us that **regular changes in posture improves our well being when sitting at work.** 

We know that people come in all shapes and sizes. That's why smart engineering inside the mechanism means the ride can be tuned and balanced to your precise needs, using adjustment controls that are easy to operate and labelled clearly.





# For those who prefer an upholstered chair.

Ara's elastomer membrane remains active even with a slim upholstered back due to the design of the foam's internal structure.

#### Ergonomic Refinement.

## Ara's ergonomic engineering is designed to accommodate diverse body weights, shapes & sizes.

Each user can fine-tune the chair's settings to their precise preferences through Ara's seven adjustment settings, with controls that are clearly marked and intuitive to use.



Multi-adjustable arms.
Soft touch pads can be rotated 180° rearward & automatically lock forward for additional safety.

2. Multi-adjustable lumbar. Both height and depth adjustable for fine-tuning seating comfort.

3. Seat height control. Lift to raise and lower seat height.

**4**. Seat slide control. Press to adjust seat depth to suit your body size.

5. Back lock control. Lift to unlock the recline of the back; press to lock the back in the position you want.

**6.** Body weight control. Turn to adjust. Tunes the tension of the back recline to suit your body weight.





At a time when population growth and resource depletion are both accelerating fast, we believe that being environmentally "less bad" is no longer an acceptable option.

For the full range of Ara colour, finish and specification options please check online

www.orangebox.com

## Cradle to Cradle is an approach to design which asks us to

"remake the way we make things" thinking about the materials we use, how our products are designed and assembled, and their cycles of use with our customers.



The process is very simply based upon the way nature uses materials. A tree will produce leaves and blossom that ultimately fall to the ground when their job is done, but they then become food for organisms and generate new growth.

#### When your waste = food then you have no waste.

In Cradle to Cradle terms, materials can be conceived in one of two ways; either as biological nutrients that can easily re-enter the water or soil without depositing synthetic materials or toxins, or as technical nutrients that can continually circulate as pure (and valuable) materials in closed loop industrial cycles.

"We look at all these materials (in the product) and instead of worrying about where they're going to end up in a landfill or incinerator, we design them to be completely safe so they can go back to nature or back into industry, pretty much forever."

Bill McDonough, co-author of Cradle to Cradle.

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No matter how good your products are, there comes a time when their first useful life comes to an end. In considering product life cycles Cradle to Cradle asks us to re-think the commonplace approach of "take, make & waste" and this prompted us to act.

Having set up a recycling facility at our manufacturing site in South Wales and having followed the principles of C2C, we're now able to offer a comprehensive take back service for this chair. Used products will be collected by our delivery fleet and if re-use isn't possible, they'll be disassembled and the materials recycled via the appropriate channel.

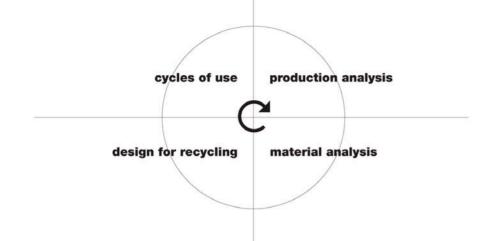
This is the crucia step in us being able to create a true closed loop cycle. The materials invested in the product can be recovered and reused rather than being down-cycled and one step closer to the landfill.

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This is of course a hugely challenging process as its success is determined by not only what we do as a manufacturer, but also by our suppliers (and theirs) and by our customers too.

We know at the moment we're only at the start of this journey BUT WE'RE CONFIDENT THAT

> Cradle to Cradle represents a potential future standard for intelligent manufacturing…



# waste=food

#### **Design Chemistry**

During the early stages of the design of ARA we established a relationship with one of Cradle to Cradle's authors, renowned industrial chemist Michael Braungart. Throughout the development we have been working with EPEA, Michael's C2C organisation based in Hamburg.

We've always very carefully considered the materials that we use in our products but our aim in working with EPEA is to ensure that what we're using is truly safe, for humans and the environment alike, and successful in technical cycles of reuse. This means looking in much more detail at every chemical ingredient in the materials we use; to determine which inhibit this aim and need to be substituted or removed as a result.

## The future standard for

Cradle to Cradle

intelligent manufacturing?

Cradle to Cradle Design is an approach which looks to make us truly environmentally effective, by developing products for closed loop systems in which all the materials used are safe and beneficial – either to biodegrade naturally or to be fully recycled into high quality materials for subsequent product generations, again and again.

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#### Take / Make / Waste

Economies the world over invest huge amounts of energy refining (finite) natural resources into very high quality materials for our products and buildings. Our existing recycling systems then turn these high quality components into lower quality, less sophisticated materials. At best, we go around this loop once or twice but by then the materials have lost most of their value and so we either bury them in landfill or burn them.

This isn't really recycling, but rather "down-cycling" and constitutes little more than slow motion waste and resource depletion. Except in geological terms, its not slow, its faster than the speed of light and these resources which are mostly derived from natural ores or fossil fuels cannot be replaced.

So how can we encourage economic growth in a world in which natural resources are increasingly scarce? With Ara, we have created an environmentally smart chair. With this in mind, we've tried to apply the same intelligence to the design and production of this brochure. The best environmental solution for a brochure is, perhaps, no brochure at all. That aside, we've aimed to ensure that its print and production remain faithful to the environmental philosophy of ARA. We've achieved this by combining waterless printing with 100% recycled and FSC certified papers, non-mineral based inks, non-ink production processes and eco-efficient binding. The result is that throughout its life, from manufacture to eventual recycling, this brochure is as environmentally intelligent as we could make it.

## ARA

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Showroom. 33 - 39 Bowling Green Lane, London EC1R 0BJ T. +44(0)20 7837 9922 F. +44(0)20 7837 4441

Head office & Manufacturing. Penallta Industrial Estate, Hengoed, Mid Glamorgan CF82 7SU

email.showroom@orangebox.com

www.orangebox.com