End of Product Life

Seating

Contents

Document Disclaimer:
This document will be reviewed, updated periodically, and is subject to change without notice. Division Twelve is not responsible for slight deviations in the data and information contained in this document. Product recyclability and material content data is calculated using base models only. Textiles and associated weights are not accounted for in the analysis. Criteria for recyclability has been assessed against available recycling facilities in at least 6 of the 10 U.S. EPA regions. Average recyclability is based on individual component weights. Some Division Twelve parts are adhered together which can present challenges when disassembling.

End of Product Life Introduction

Division Twelve seating is the product of durable materials, modernist design, and oh-so-careful craftsmanship. From prototype to final installation, we're there every step of the way, to ensure our pieces exceed your expectations, every single time. Once your Division Twelve chair or component reaches the end of its life, the whole product doesn't have to end up in a landfill. Many of the parts and materials still have value, and can be repaired, replaced, or recycled to avoid an afterlife as waste.

This document provides instructions for component-based disassembly that can be applied to all our Division Twelve seating. For material and component details for each product, along with an outline of how to recycle these components after disassembly, follow the instructions. Disassembly should take between 5-15 minutes depending on the product and model. Safety glasses and safety gloves are recommended throughout the disassembly process.

Repairability and Recyclability

Division Twelve products are made to last a long and useful life with components that are designed with modularity and repairability in mind. We take pride in the extra steps that we take to ensure our parts are indeed replaceable and this is supported by our 10 year Warranty Policy. (See our Warranty Policy for more details)

Depending on the specific model and manufacturing date, product parts can generally be easily repaired or replaced at home using standard tools. For more details about your specific product, please contact our Warranty department.

The following are our standard components and general information on replaceability. For product specific details, please refer to the Materials & Components Table on pages 9 through 11.

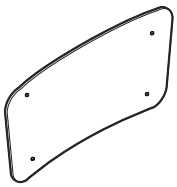
Anatomy of a Product

A.	Textile/Foam, or Plastic or Wood
B.	Frame
C.	Back
D.	Arms
E.	Seat
F.	Glides

Standard Components

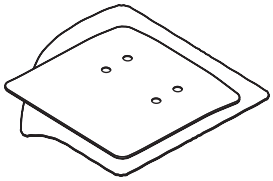
Back

Most plastic back units are easily and quickly replaceable using only a screwdriver.



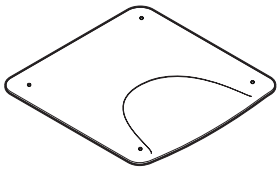
Upholstered Seat

Depending on the model, entire upholstered seat units including the cowling, seat pan, foam and covering are replaceable.



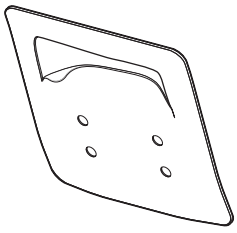
Seat

Most plastic seat units are easily and quickly replaceable using only a screwdriver.



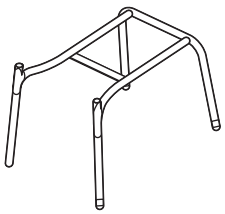
Upholstered Back

Depending on the model, entire upholstered back units including the seat pan, foam and covering are replaceable.



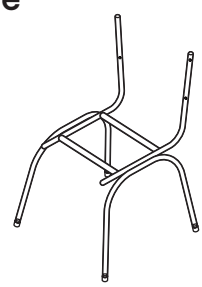
Standard Components

Legs



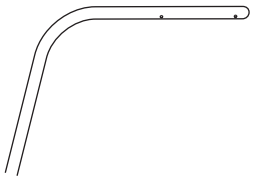
Most product legs are replaceable. Some product legs and/or frames and/or arms are one unit, and depending on the model the entire unit may be replaceable.

Frame



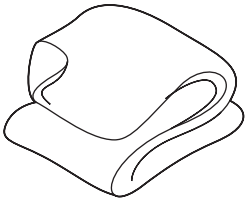
Most frames are replaceable. Some product frames and/or legs and/or arms are one unit, and depending on the model the entire unit may be replaceable.

Arms



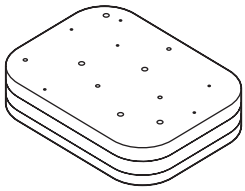
Depending on the specific model and year, arms are generally replaceable.

Upholstery



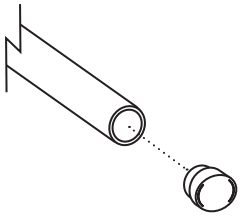
Depending on the specific model, year and material availability, upholstery may be replaceable at Division Twelve facilities.

Foam



As this component is fixed within a larger unit, foam is not replaceable on its own. Upholstered seat or back units may be replaceable depending on the product.

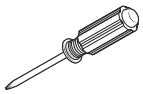
Glides



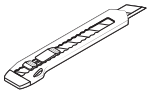
Depending on specific model and unit, glides are generally replaceable.

Tools Required

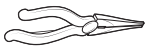
Screwdriver*



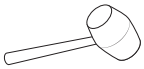
Box Cutter



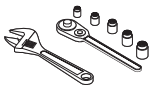
Needle Nose Pliers



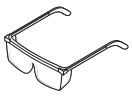
Mallet



Adjustable Wrench or Socket Set*



Safety Glasses

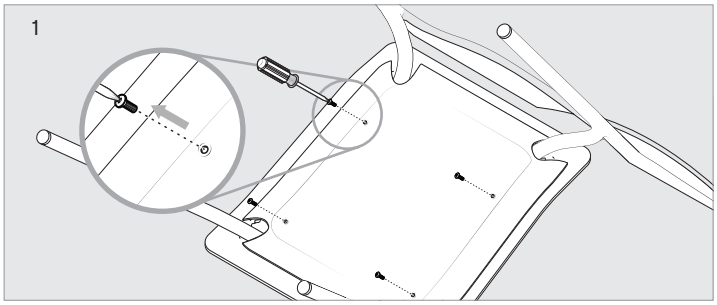


Safety Gloves

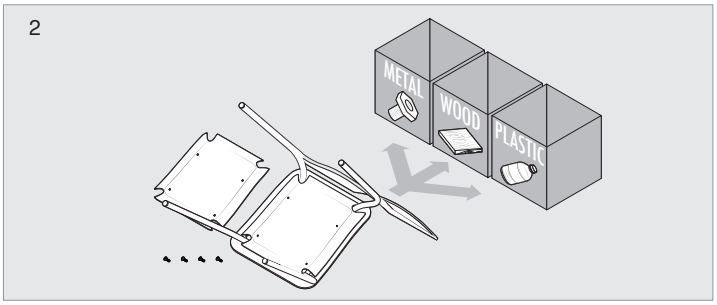
*To determine the screwdriver types and bits required for each product refer to the Materials and Components Table on pages 9 through 11.

Disassembly Instructions

Removing the plastic 'cowling' base cover from a 4-leg or sled frame

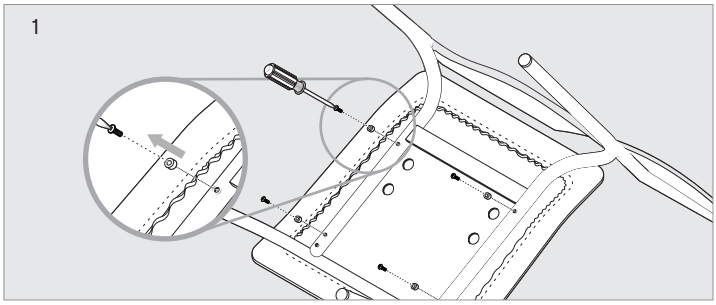


Turn the chair over and rest the chair back on the ground so the legs are pointing up. Using a screwdriver, remove any visible screws holding the plastic cowling base cover in place.

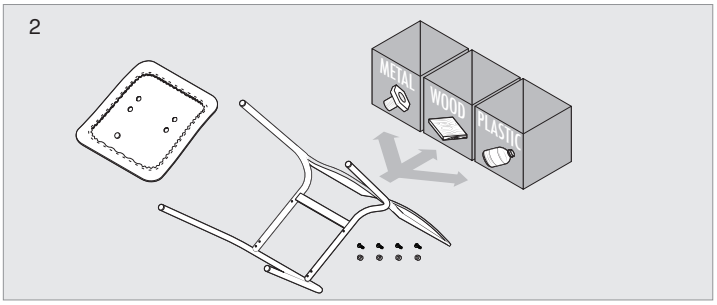


Separate plastic and metal parts and refer to page 8 for recycling details.

Removing the seat from a 4-leg or sled frame

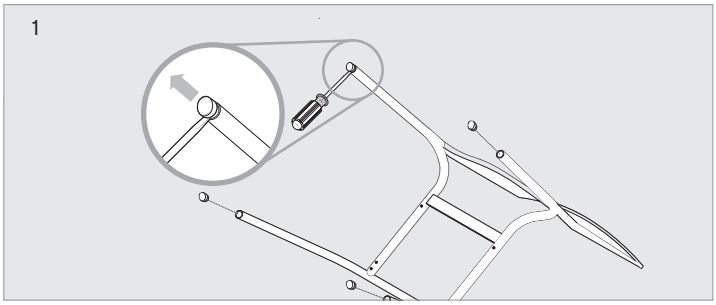


Turn the chair over and rest the chair back on the ground so the legs are pointing up. Locate the screws and use a screwdriver to remove the screws connecting the metal frame to the seat. For some upholstered bases, undo the zippers first, or cut off textile to expose hardware.

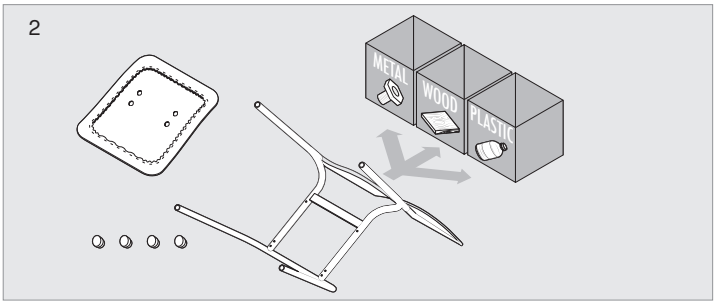


Consolidate the materials by type and refer to page 8 for recycling details.

Removing the glides and/or bumpers from the 4-leg or sled frame

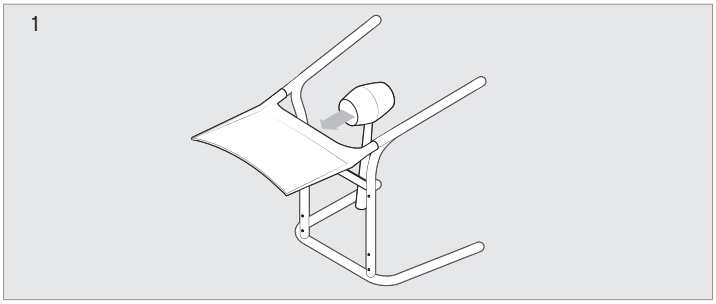


Turn the chair over and rest the chair back on the ground so that the legs are pointing up. To remove glides and other plastic parts from the frame, use needle nose pliers, a slot screwdriver and/or a mallet to wedge between the frame and plastic part to 'pop' the plastic glide or bumper off.

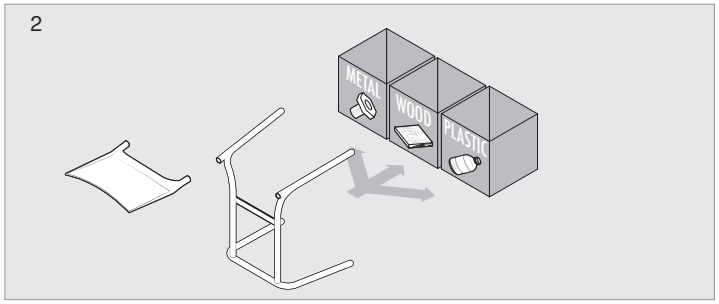


Set the plastic glides/bumpers aside and refer to page 8 for recycling details.

Removing the back from the frame

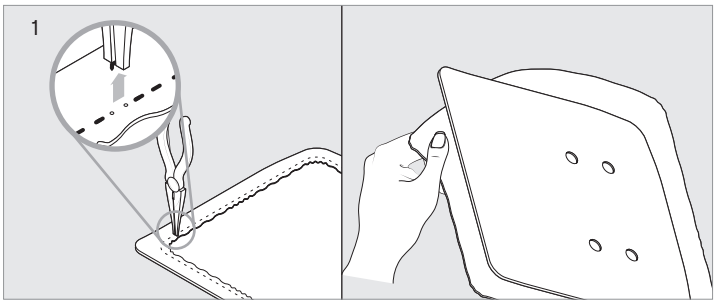


For plastic or wood backs: Locate and remove any visible screws. For backs without screws, hold the frame and use a mallet to tap the base of the chair back and ‘pop’ out the back part.
For upholstered backs: undo the zippers first, or cut off textile to reveal screws, and use a screwdriver to remove the screws.

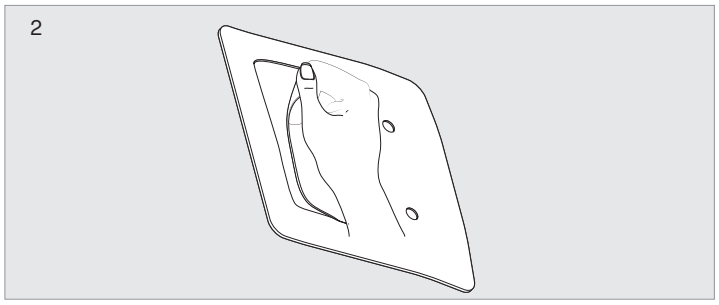


Set all wood, plastic and metal parts aside and refer to page 8 for recycling details.

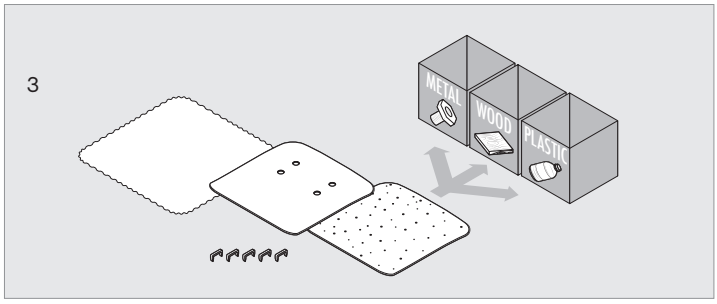
Removing upholstery



Place the seat or back on a hard surface with the staples facing up. Using needle nose pliers, remove the staples from the base and pull the textile off of the seat. Consolidate the staples with the metal frame.



Using your hands or a knife, remove the foam from the plastic or wood base.



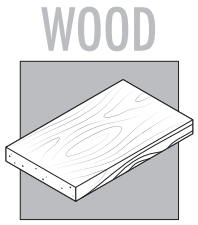
Separate components by material type and refer to page 8 for recycling details.

Recycling the Disassembled Product

Our goal is Closed-Loop Manufacturing, and this extends to our product's end of useful life. Through our Design for Environment (DFE) program, we ensure that we design our products with high quality, long-lasting materials. We also aim to design them to be easily disassembled, and that the materials are recyclable across all municipalities.

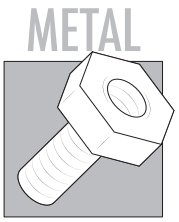
Our efforts, along with the efforts of many municipalities across the globe have taken great strides towards environmentally responsible materials management. Still, some materials may or may not be fully recyclable in certain areas. The recyclability of a material depends on the volume available, whether there is an end market for the material, purity of the material (avoid coatings, mixed materials, etc.), and availability of recycling infrastructure (is there a collection method, a processing facility, etc.).

The following outline provides some basic information regarding the most common Division Twelve materials. For more information regarding recyclable materials in your area, please contact your local municipality or recycling company.

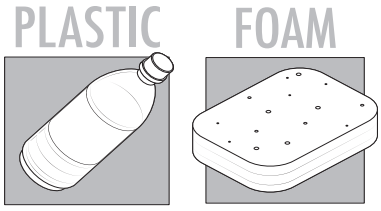


Type:	Hardwood, Plywood, MDF
Recyclability:	Recyclable
Value:	$0 – $1/board foot USD
How to recycle:	Contact local recycling companies or your local municipality.

Type:	Leather, Nylon, Polyester
Recyclability:	Recyclable
Value:	Leather $0.20/lb. – $0.32/lb. USD Nylon $0.06 – $0.25/lb. USD Polyester $0.06 – $0.25/lb. USD
How to recycle:	Contact local recycling companies or your local municipality.

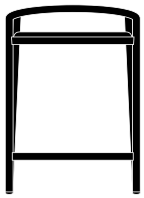
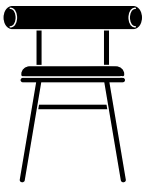


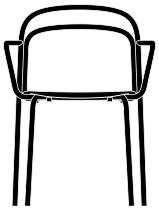
Type:	Steel, Aluminum, Zinc
Recyclability:	Recyclable
Value:	Steel $0.50/lb. – $0.60/lb. USD Aluminum $0.65 – $0.95/lb. USD Zinc $0.42 - $0.71/lb USD
How to recycle:	Contact local scrap metal dealers, recycling companies or your local municipality.



Type:	Acetal (POM), Acrylonitrile Butadiene Styrene (ABS), Glass-filled Polypropylene (PP-GF15), Glass-filled Nylon (PA-GF15, PA-GF27, and PA-GF30), Medium Impact Modified Nylon (PA6-MI), Medium Impact Modified Polypropylene (PP-MI), Nylon (PA), Polycarbonate (PC), Polyethylene Terephthalate (PET), Polyester (PEST), Polyethylene (PE and PE-HD), Polyurethane (PUR and PUR-HD), Polypropylene (PP), Styrene Butadiene/K-resin (SB), Thermoplastic Elastomer (PO-PE), Urethane (UR), Vinyl (V).
Recyclability:	ABS, PA,PE and PP – Widely recyclable PP-GF15, PP-MI, PA6-MI, PA-GF15/27/30, PC, PET, PEST, POM, PO-PE, PUR, SB, UR, and V – Not commonly recyclable
Value:	$0.06/lb. – $0.35/lb. USD
How to recycle:	ABS, PA, PE and PP – Contact recycling companies or recycle through your municipality (if accepted) PP-GF15, PP-MI, PA6-MI, PA-GF15/27/30, PC, PET, PEST, POM, PO-PE, PUR, SB, UR, and V – Contact local recycling companies.

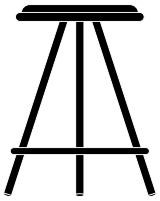
Materials and Components Table

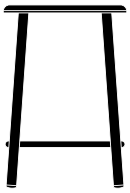





Possible Components	BENDER	BITSI	BRAT	CATTY
Back	♻ Steel [2]	N/A	♻ Steel [2]	♻ Steel [2]
Seat	♻ Hardwood or plastic (PE-HD)	N/A	♻ Hardwood or plastic (PE-HD)	♻ Steel [5] or engineered plywood
Upholstered Seat	♻ Plywood with high-density polyurethane (PUR-HD) foam	♻ MDF with high-density polyurethane (PUR-HD) foam	♻ Plywood with high-density polyurethane (PUR-HD) foam	N/A
Upholstered Back	N/A	♻ Steel [2] with moulded high-density polyurethane (PUR-HD) foam	N/A	N/A
Seat Decking	N/A	N/A	N/A	N/A
Legs	♻ Steel [1]	♻ Steel [1]	♻ Steel [1]	♻ Steel [1]
Frame	♻ Steel [1, 2, 4]	♻ Steel [1, 2]	♻ Steel [1, 2, 4]	♻ Steel [1, 2, 4, 5]
Arms	♻ Steel [4]	N/A	♻ Steel [4]	♻ Steel [4]
Arm Caps	N/A	N/A	N/A	N/A
Tablet	N/A	N/A	N/A	N/A
Foam	High-density CFC-free polyurethane (PUR-HD) foam	High-density CFC-free polyurethane (PUR-HD) foam	High-density CFC-free polyurethane (PUR-HD) foam	N/A
Glides	♻ Plastic (PA)	♻ Plastic (PA)	♻ Plastic (PA)	♻ Plastic (PA)
Disassembly Screwdriver(s)	5/32” Hex Key	5/32” Hex Key	5/32” Hex Key	#2 Red Robertson
Average Weight (kg)	7.8	6.71	7.26	6.44
Average Recyclability*	91.57 %	80.73 %	88.20 %	95.56 %

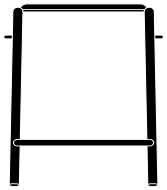
* See Document Disclaimer (p 2)
♻ Component replaceable
1 Legs and Frame are one unit
2 Back and Frame are one unit
3 Arms and Back are one unit
4 Arms and Frame are one unit
5 Seat and Frame are one unit
6 Dependent on the model

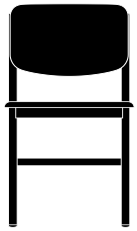


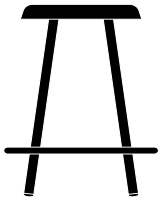


Possible Components	DAYTRIP	DEK	GOLDI
Back	N/A	N/A	N/A
Seat	N/A	♻ Hardwood or plastic (PE-HD)	♻ Hardwood or plastic (PE-HD)
Upholstered Seat	♻ Plywood with high-density polyurethane (PUR-HD) foam	♻ Plywood with high-density polyurethane (PUR-HD) foam	♻ Plywood with high-density polyurethane (PUR-HD) foam [6]
Upholstered Back	N/A	N/A	N/A
Seat Decking	N/A	N/A	N/A
Legs	♻ Steel [1]	♻ Steel [1]	♻ Steel [6]
Frame	♻ Steel [1]	♻ Steel [1,]	♻ Steel [6]
Arms	N/A	N/A	N/A
Arm Caps	N/A	N/A	N/A
Tablet	N/A	N/A	N/A
Foam	High-density CFC-free polyurethane (PUR-HD) foam	High-density CFC-free polyurethane (PUR-HD) foam	High-density CFC-free polyurethane (PUR-HD) foam
Glides	♻ Plastic (PA)	Plastic (PE-HD)	♻ Plastic (PA)
Disassembly Screwdriver(s)	5/32” Hex Key	5/32” Hex Key	5/32” Hex Key
Average Weight (kg)	7.59	7.00	8.65
Average Recyclability*	98.03 %	88.66 %	99.30%

* See Document Disclaimer (p 2)
♻ Component replaceable
1 Legs and Frame are one unit
2 Back and Frame are one unit
3 Arms and Back are one unit
4 Arms and Frame are one unit
5 Seat and Frame are one unit
6 Dependent on the model







Possible Components	HECTIC	RESTO	SHOP
Back	N/A	♻ Steel [2]	♻ N/A
Seat	♻ Hardwood or plastic (PE-HD)	♻ Hardwood or plastic (PE-HD)	♻ Steel [5]
Upholstered Seat	♻ Plywood with high-density polyurethane (PUR-HD) foam	♻ Plywood with molded high-density polyurethane (PUR-HD) foam	N/A
Upholstered Back	N/A	N/A	N/A
Seat Decking	N/A	N/A	N/A
Legs	♻ Steel [1]	♻ Steel [1]	♻ Steel [1]
Frame	♻ Steel [1]	♻ Steel [1, 2]	♻ Steel [1, 5]
Arms	N/A	N/A	N/A
Arm Caps	N/A	N/A	N/A
Tablet	N/A	N/A	N/A
Foam	High density CFC-free polyurethane (PUR-HD) foam	High density CFC-free polyurethane (PUR-HD) foam	N/A
Glides	♻ Plastic (SB)	♻ Plastic (PA)	♻ Plastic (PA)
Disassembly Screwdriver(s)	5/32" Hex Key	5/32" Hex bit	No tools required
Average Weight (kg)	7.95	9.36	6.31
Average Recyclability*	90.91 %	92.29 %	98.91 %

* See Document Disclaimer (p 2)
♻ Component replaceable
1 Legs and Frame are one unit
2 Back and Frame are one unit
3 Arms and Back are one unit
4 Arms and Frame are one unit
5 Seat and Frame are one unit
6 Dependent on the model

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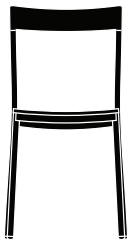
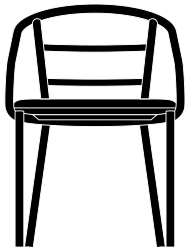
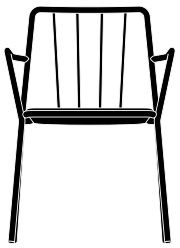

Possible Components	SPINNI	TWIGZ	WEDGE	WINNY
Back	♻ Steel	♻ Aluminum	♻ Steel [2]	♻ Steel [2]
Seat	♻ Steel	Plywood	♻ Hardwood or plastic (PE-HD)	♻ Engineered plywood or plastic (PE-HD)
Upholstered Seat	High-density CFC-free polyurethane (PUR-HD) foam	♻ Plywood	Plywood with high-density polyurethane (PUR-HD) foam	N/A
Upholstered Back	High-density CFC-free polyurethane (PUR-HD) foam	N/A	N/A	N/A
Seat Decking	N/A	N/A	N/A	N/A
Legs	♻ Steel	N/A	♻ Steel [1]	♻ Steel [1]
Frame	♻ Steel [6]	♻ Steel	♻ Steel [1, 2, 4]	♻ Steel [1, 2, 4]
Arms	N/A	N/A	♻ Steel [4]	♻ Steel [4]
Arm Caps	N/A	N/A	N/A	N/A
Tablet	N/A	N/A	N/A	N/A
Foam	High-density CFC-free polyurethane (PUR-HD) foam	CFC-free polyurethane	High-density CFC-free polyurethane (PUR-HD) foam	N/A
Glides	♻ Plastic (PA)	Nylon	♻ Plastic (PA)	♻ Plastic (PA)
Disassembly Screwdriver(s)	5/32” Hex Key	1/8” & 5/32” Hex Bit	5/32” Hex Key	5/32” Hex Key
Average Weight (kg)	12.62	5.12	8.87	5.73
Average Recyclability*	89.58 %	91.99 %	98.47 %	73.61 %

* See Document Disclaimer (p 2)
♻ Component replaceable
1 Legs and Frame are one unit
2 Back and Frame are one unit
3 Arms and Back are one unit
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