CIRCUIT™ BENCH CONFIGURATIONS	Total Recycled Content	Post-Industrial Recycled Content	Post-Consumer Recycled Content	3rd Party Cert
FSC® 100% Reclaimed Teak Hardwood Slat Seat	98%	59%	39%	FSC
TAKTL Seat	32%	32%	0%	

FSC License Code: FSC-C004453

GREEN BUILDING STANDARDS

LEED®

This product can apply to the LEED credits outlined below. In order to provide knowledgeable assistance to our customers, we also have a LEED Accredited Professional on staff. If you don't see the information you need for your project on this page, you can contact our LEED AP by e-mailing green@forms-surfaces.com.

- **MR: Materials Reuse** – Wood used in this product has been reclaimed. The percentage by weight of reclaimed material in the assembly can be found in the summary table below.
- **MR: Recycled Content** – This product contains recycled material. Recycled content information is shown above for all of our standard options. Custom product recycled content is available by advance request.
- **MR: Regional Materials** – We have manufacturing facilities in Pittsburgh, PA (15223), Carpinteria, CA (93013), Phoenix, AZ (84043), Santa Fe Springs, CA (90605) and Pune, India. The majority of TAKTL material is sourced locally from our Pittsburgh, PA facility. Please contact us for more information.
- **MR: Certified Wood** – Wood used in this product is certified by the Forest Stewardship Council and can be counted towards the LEED® Certified Wood credit.

LEED® India

This product can apply to one or more LEED India credits, as outlined below. If you don't see the information you need for your project on this page, you can contact us by e-mailing green@forms-surfaces.com.

- **MR: Resource Reuse** – Wood used in this product has been reclaimed. The percentage by weight of reclaimed material in the assembly can be found in the summary table below.
- **MR: Recycled Content** – This product contains recycled material. Recycled content information is shown above for all of our standard options. Custom product recycled content is available by advance request.
- **MR: Local/Regional Materials** – We have manufacturing facilities in Pune, India. Wood has been reclaimed from buildings in India. Please contact us for more information.
- **MR: Certified Wood** – Wood used in this product is certified by the Forest Stewardship Council and can be counted towards the LEED India Certified Wood credit.

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Green Globes™

This product can apply to one or more Green Globes credits, as outlined below. Our sustainability team is knowledgeable about the Green Globes™ standards, so please feel free to contact us at green@forms-surfaces.com should you need more information.

- **10.2.2.1 Recycled Content** – This product contains recycled material. Recycled content information is shown above for all of our standard options. Custom product recycled content is available by advance request.
- **10.2.4.1 Transportation of Manufactured Materials -** We have manufacturing facilities in Pittsburgh, PA (15223), Carpinteria, CA (93013), Phoenix, AZ (84043), Santa Fe Springs, CA (90605) and Pune, India. The majority of TAKTL material is sourced locally from our Pittsburgh, PA facility. Please contact us for more information.
- **10.3.1.1 Off-Site Salvaged Materials -** Wood used in this product has been reclaimed. The percentage by weight of reclaimed material in the assembly can be found in the summary table below.
- **10.3.2.1 Certified Wood -** Wood used in this product is certified by the Forest Stewardship Council.

Estidama

This product can apply to the Estidama credits outlined below. We are familiar with the Estidama standards, so please feel free to contact us at green@forms-surfaces.com should you need additional information.

- **ADMAT1: Materials Specification - Major Building Elements – Recycled** – This product contains recycled material. Recycled content information is shown above for all of our standard options. Custom product recycled content is available by advance request.
- **ADMAT5: Sustainable Materials Sourcing -** Many of our products are manufactured with environmental sensitivity in mind. Contact us for more information.
- **ADWAS1: Reduction of Waste** – Most of our products are recyclable. Full disposal information can be found below.

PRODUCT MATERIALS

Material	Type	Description	Mainte-nance (0-5)*	Inherent Value (0-5)**	Scratch-Resistant	Corrosion/Wear Resistant	Biodegradable	Rapidly Renewable	Recyclable
Aluminum	Extruded	Simple or complex profiles created by forcing aluminum through a shaped die.	3	3		x			x
Aluminum	Cast	Solid aluminum cast in a mold to create a desired shape.	3	3		x			x
Concrete	Ultra-High Performance	Densely packed concrete matrix with strong chemical bonds and low water absorption yielding extremely high compressive, tensile and flexural strength. Exhibits a ceramic-like surface with integral pigment that stands up to water, salt and corrosive environmental contaminants.	5	1	x	x			x
Wood	Reclaimed Teak	Tropical hardwood from Asia valued for its beauty, durability and weather resistance. Reclaimed from old, neglected buildings.	3	1			x		

*Maintenance ratings are assigned as follows: 0 – High level of maintenance required to keep up product performance and aesthetics; 5 – Absolutely no maintenance required to keep up product's visual appearance and performance characteristics;

**Inherent value ratings are assigned based on the material's scrap value: 0 – No scrap value, or negative scrap value, and/or no scrap market; 5 – High scrap value, accompanied by robust scrap market.

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PROCESSES

F+S Facility Processes	Process Description	Vendor Facility Processes	Process Description
Powdercoating	A solvent-free finishing method in which electrically charged particles of pigmented resins are sprayed onto a product. Electrical grounding of the coated object causes the charged powder to adhere to the surface. When baked in a curing oven the deposited powder melts and fuses together to form a durable, cross-linked coating	Aluminum Chromate Conversion	A process in which aluminum is coated in a thin layer of trivalent chromate to improve corrosion resistance and coating adhesion.
Sand Blasting	The process of smoothing, shaping and cleaning a hard surface by forcing solid particles across that surface at high speeds to provides an even finish.	Aluminum Making	A two-step process by which the aluminum is first dissolved in a caustic bath and then precipitated out in crystals. This two-step process can be circumvented by using recycled scrap that is melted down to form new parts.
Saw Cutting	A tool with an abrasive edge is used to cut through various materials.	Concrete Casting	Process of mixing concrete, filling molds, and curing the material in ambient or moderately climate-controlled environment.
		Concrete Mold Making	Process of constructing reusable molds for forming concrete from a variety of materials, including wood, metal, and composites.
		Extrusion	Process in which heated metal is pushed through a cross-sectional die to create a linear part with a specific shape.
		Gravity Casting	Process of using gravity to force molten metal into mold cavities. Gravity casting allows for high volume production while retaining good part detail, fine surface quality and dimensional consistency.
		Reclaimed Wood Processing	Nails and other fasteners are removed from wood beams and planks. Wood is cut to size and patches are applied to repair damage caused by fasteners.
		Wood Finishing	Linseed oil is applied to the wood to enhance its appearance and to protect it from staining or weathering.
		Wood Reclamation	Wood is hand salvaged from old, neglected buildings

PACKAGING MATERIALS

Material	Type	Description	Disposal
Cardboard	Box	Small or light products are packaged in cardboard boxes. We often reuse boxes for shipping.	Recycle
Cardboard	Spacers	Used to provide impact cushioning between a product and its package or between two products.	Recycle
Foam	Soy Sheets	Soy foam sheets are used to protect the finish on products.	Biodegradable
Wood	Crate	Wood crates are made to fit onsite. Wood scraps are recycled into mulch. Crates are reused when possible.	Reuse / Recycle
Wood	Pallet	Wood pallets are purchased for use in shipping. Pallets are reused onsite until no longer serviceable, at which point they are recycled.	Reuse / Recycle

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TRANSPORT

Method	Type	Description
Boat	Overseas	Some product components are shipped by cargo ship from overseas.
Ground	Truck/Rail	Some incoming shipments and almost all outgoing shipments to customers are sent via ground transportation. This can include truck and often rail transport depending on the final destination.

MAINTENANCE & USE

Maintenance or Use	Description	Chemicals Required
Clean with Water and Mild Cleaner	This product requires a damp cloth and a mild, nontoxic cleaner for maintenance.	Mild, water-based cleaner.
Ergonomic	Product is designed for ergonomic use, which will contribute to service life.	NA
Wood Finishing	Wood in this product can be allowed to weather, but must be refinished with linseed oil to retain the original look.	Linseed oil

DISPOSAL

Method	Description
Biodegradable	Some components of this product are biodegradable.
Disassemble	Product can be disassembled to separate recyclable components.
Recyclable – Fully	Our configuration options including TAKTL are fully recyclable.
Recyclable – Partially	Our configuration options including wood are partially recyclable.
Recycling – Scrap	Materials can be sold for scrap.
Reuse	This item can be reused in the same or different function.

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SUMMARY

Category Type	Property/Component	FSC 100% Reclaimed Teak Hardwood Slat Seat	TAKTL Seat
Basic	Total Recycled Content	98%	32%
Basic	Post-Industrial Recycled Content	59%	32%
Basic	Post-Consumer Recycled Content	39%	0%
Basic	3rd Party Cert	FSC	
LEED	MR: Materials Reuse (% by weight)	40%	
LEED	MR: Recycled Content	x	x
LEED	MR: Regional Materials	x	x
LEED	MR: Certified Wood	x	
LEED India	MR: Resource Reuse (% by weight)	40%	
LEED India	MR: Recycled Content	x	x
LEED India	MR: Local/Regional Materials	x	x
LEED India	MR: Certified Wood	x	
Green Globes	10.2.2.1 Recycled Content	x	x
Green Globes	10.2.4.1 Transport Manufactured Matls	x	x
Green Globes	10.3.1.1 Off-Site Salvaged Materials (% by weight)	40%	
Green Globes	10.3.2.1 Certified Wood	x	
Estidama	ADMAT1: Matls Spec - Major Bldg Elements - Recycled	x	x
Estidama	ADMAT5: Sustainable Materials Sourcing	x	x
Estidama	ADWAS1: Reduction of Waste	x	x
Materials	Al – Cast	x	x
Materials	Al – Extruded	x	
Materials	Concrete – Ultra-High Performance		x
Materials	Wood – FSC 100% Reclaimed Teak	x	
Processes	Aluminum Chromate Conversion	x	x
Processes	Aluminum Making	x	x
Processes	Concrete Casting		x
Processes	Concrete Mold Making		x
Processes	Extrusion	x	
Processes	Gravity Casting	x	x
Processes	Powdercoating	x	x
Processes	Reclaimed Wood Processing	x	
Processes	Sand Blasting	x	x
Processes	Saw Cutting	x	
Processes	Wood Finishing	x	
Processes	Wood Reclamation	x	
Packaging	Cardboard – Box	x	x
Packaging	Cardboard – Spacers	x	x
Packaging	Foam – Soy Sheets	x	x
Packaging	Wood – Crate	x	x
Packaging	Wood – Pallet	x	x
Transport	Boat – Overseas	x	x
Transport	Ground – Truck/Rail	x	x
Maintenance & Use	Clean with Water and Mild Cleaner	x	x
Maintenance & Use	Ergonomic	x	x
Maintenance & Use	Wood Finishing	x	

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SUMMARY Continued

Category Type	Property/Component	FSC 100% Reclaimed Teak Hardwood Slat Seat	TAKTL Seat
Disposal	Biodegradable	x	
Disposal	Disassemble	x	x
Disposal	Recyclable – Fully		x
Disposal	Recyclable – Partially	x	
Disposal	Recycling – Scrap	x	x
Disposal	Reuse	x	x

Forms+Surfaces is dedicated to environmental responsibility. We maintain an Environmental Management System and are continually working to improve our impact through efficiency, material selection, vendor education, employee involvement, and an unwavering commitment to being exemplary corporate citizens. If you would like additional information on our Environmental Management System or our company environmental initiatives and policies, please feel free to contact our Sustainability Team at green@forms-surfaces.com.

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