

Fused Metal is durable, corrosion-resistant, low-maintenance, recyclable and contains high recycled content.

Recycled Content & Certifications

Configurations – Fused Bronze™, Fused Graphite™, Fused Nickel Bronze™, Fused Nickel Silver™, Fused White Gold™	Post-Industrial Recycled Content	Post-Consumer Recycled Content	Total Recycled Content	3rd Party Certifications
Sandstone finish (High-Durability)	0%	78%	78%	-
Seastone finish (High-Durability)	0%	78%	78%	-
Linen finish (High-Durability)	0%	78%	78%	-
Diamond finish (High-Durability)	0%	78%	78%	-
Mirror finish	18%	53%	71%	-
Satin finish	18%	53%	71%	-

Green Building Standards

LEED® v3
<i>MR2: Construction Waste Management</i> – packaging is designed to be reusable or recyclable. See below for details.
<i>MR4: Recycled Content</i> – this product contains recycled material. Please contact us for additional information.
<i>MR5: Regional Materials</i> – this product is manufactured in Phoenix, AZ, Pittsburgh, PA or Taichung City, Taiwan. Contact for additional information.
LEED v4
<i>MRp2/MR5: Construction Waste Management</i> – packaging is designed to be reusable or recyclable. See below for details.
<i>MR3: Sourcing of Raw Materials (recycled content)</i> – this product contains recycled material which is listed above. <i>(regional materials)</i> – this product is manufactured in Phoenix, AZ, Pittsburgh, PA or Taichung City, Taiwan. Contact for additional information.
<i>MR4: Material Ingredients</i> – this product has a Health Product Declaration. Contact for details.
<i>EQ2: Low-emitting Materials</i> – inherently non-emitting sources. Contact for details.
Green Globes™
<i>3.5.4.1 Construction Waste</i> – packaging is designed to be reusable or recyclable. See below for details.
<i>3.7.2.1 Volatile Organic Compounds</i> - inherently non-emitting sources. Contact for details.
Estidama Pearl Rating System: Design & Construction, Version 1.0
<i>LBi-2.5: Material Emissions: Formaldehyde Reduction</i> – inherently non-emitting sources. Contact for details.
<i>SM-R1: Hazardous Material Elimination</i> – product contains no ACMs and no CCA-treated timber
<i>SM-R2/SM-13: Construction Waste Management</i> - packaging is designed to be reusable or recyclable. See below for details.

Product Materials

Material	Description	Maintenance (0-5)*	Inherent Value (0-5)**	Biodegradable	Corrosion/Wear Resistant	Rapidly Renewable	Recyclable	Scratch Resistant
Fused Metal	Stainless Steel substrate with a vapor-deposited titanium surface layer added to produce decorative colors while retaining the performance characteristics of Stainless Steel.	4	4		x		x	
Fused Metal – High-Durability Finish	Stainless Steel substrate with a vapor-deposited titanium surface layer added to produce decorative colors while retaining the performance characteristics of Stainless Steel with a finish applied by high-pressure rollers to produce a work-hardened surface with enhanced resistance to wear.	4	4		x		x	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								

Processes

Process	Description
Calendaring	Metalworking process in which sheet metal is rolled out at room temperature, changing the molecular structure to make it harder and more resistant to scratching.
Cutting	A variety of methods may be used to cut through various materials.
Eco-Etch	Physical etching process in which an artwork mask is applied to a metal surface that is then bead-blasted. Unmasked areas become more matte, whereas masked areas retain their original look. Beads are recycled within the process until the particles become too small to use.
Forming	A mechanical process used to alter the shape of metal.
Metal Finishing	Applied using grinding/sanding or polishing wheels. Finishing produces a grained/brushed or mirror-like finish on the surface, and depending on the material will increase corrosion resistance.
Multi-Ion Vapor Deposition (Fusing)	Using a vacuum chamber, a thin layer of titanium is chemically fused to the surface of a stainless steel substrate. By changing vacuum gas composition, temperature, and pressure, the titanium can be made take on different decorative colors as it bonds with the stainless steel.
Steel Making	Steel and stainless steel are made in one of two types of furnace: a Basic Oxygen Furnace (BOF) or an Electric Arc Furnace (EAF). A BOF is used to make steel from iron ore or from scrap steel; an EAF is used primarily to reprocess scrap steel.

Packaging Materials

Material	Type	Description	Disposal
Foam	Sheets	Micro foam sheets are used to protect the finish on products.	Reuse
Polyethylene	Sheets	Polyethylene material that is applied to the sheets to protect the finish on products.	Recycle
Wood	Crate	Made to fit onsite. Wood scraps are recycled into mulch. Crates are reused when possible.	Reuse/Recycle

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. We are an EPA SmartWay® Transport Partner.

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

Disposal

Method	Description
Recyclable - Fully	This product is fully recyclable.
Recycling - Scrap	Materials can be sold for scrap.

SUMMARY – Fused Metal Sandstone, Seastone, Linen and Diamond finishes

Category Type	Property/Component	No Pattern	Impression Patterns	Eco-Etch Patterns	Fusion Patterns
Basic	Post-Industrial Recycled Content	0%	0%	0%	0%
Basic	Post-Consumer Recycled Content	78%	78%	78%	78%
Basic	Total Recycled Content	78%	78%	78%	78%
LEED v3	MR: Construction Waste Management	x	x	x	x
LEED v3	MR: Recycled Content	x	x	x	x
LEED v3	MR: Regional Materials	Contact	Contact	Contact	Contact
LEED v4	MR: Construction Waste Management	x	x	x	x
LEED v4	MR: Sourcing...recycled content	x	x	x	x
LEED v4	MR: Sourcing...regional materials	Contact	Contact	Contact	Contact
LEED v4	MR: Material Ingredients	Contact	Contact	Contact	Contact
LEED v4	EQ: Low-emitting Materials	Contact	Contact	Contact	Contact
Green Globes	3.5.4.1 Construction Waste	x	x	x	x
Green Globes	3.7.2.1 Volatile Organic Compounds	Contact	Contact	Contact	Contact
ESTIDAMA	LBI: Material Emissions	Contact	Contact	Contact	Contact
ESTIDAMA	SM: Hazardous Material Elimination	x	x	x	x
ESTIDAMA	SM: Construction Waste Management	x	x	x	x
Materials	Fused Metal				
Materials	Fused Metal – High-Durability Finish	x	x	x	x
Processes	Calendaring	x	x	x	x
Processes	Cutting				
Processes	Eco-Etching			x	x
Processes	Forming		x		x
Processes	Metal Finishing				
Processes	Multi-Ion Vapor Deposition (Fusing)	x	x	x	x
Processes	Steel Making	x	x	x	x
Packaging	Foam Sheets	x	x	x	x
Packaging	Polyethylene Sheets	x	x	x	x
Packaging	Wood – Crate	x	x	x	x
Transport	Boat - Overseas	x	x	x	x
Transport	Ground – Truck/Rail	x	x	x	x
Maintenance & Use	Clean with Water and Mild Cleaner	x	x	x	x
Disposal	Recyclable - Fully	x	x	x	x
Disposal	Recycling - Scrap	x	x	x	x

SUMMARY – Fused Metal Mirror and Satin finishes

Category Type	Property/Component	No Pattern	Impression Patterns	Eco-Etch Patterns	Fusion Patterns
Basic	Post-Industrial Recycled Content	18%	18%	18%	18%
Basic	Post-Consumer Recycled Content	53%	53%	53%	53%
Basic	Total Recycled Content	71%	71%	71%	71%
LEED v3	MR: Construction Waste Management	x	x	x	x
LEED v3	MR: Recycled Content	x	x	x	x
LEED v3	MR: Regional Materials	Contact	Contact	Contact	Contact
LEED v4	MR: Construction Waste Management	x	x	x	x
LEED v4	MR: Sourcing...recycled content	x	x	x	x
LEED v4	MR: Sourcing...regional materials	Contact	Contact	Contact	Contact
LEED v4	MR: Material Ingredients	Contact	Contact	Contact	Contact
LEED v4	EQ: Low-emitting Materials	Contact	Contact	Contact	Contact
Green Globes	3.5.4.1 Construction Waste	x	x	x	x
Green Globes	3.7.2.1 Volatile Organic Compounds	Contact	Contact	Contact	Contact
ESTIDAMA	LBI: Material Emissions	Contact	Contact	Contact	Contact
ESTIDAMA	SM: Hazardous Material Elimination	x	x	x	x
ESTIDAMA	SM: Construction Waste Management	x	x	x	x
Materials	Fused Metal	x	x	x	x
Materials	Fused Metal – High-Durability Finish				
Processes	Calendaring				
Processes	Cutting				
Processes	Eco-Etching			x	x
Processes	Forming		x		x
Processes	Metal Finishing	x	x	x	x
Processes	Multi-Ion Vapor Deposition (Fusing)				
Processes	Steel Making	x	x	x	x
Packaging	Foam Sheets	x	x	x	x
Packaging	Polyethylene Sheets	x	x	x	x
Packaging	Wood – Crate	x	x	x	x
Transport	Boat - Overseas	x	x	x	x
Transport	Ground – Truck/Rail	x	x	x	x
Maintenance & Use	Clean with Water and Mild Cleaner	x	x	x	x
Disposal	Recyclable - Fully	x	x	x	x
Disposal	Recycling - Scrap	x	x	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.