



FUSED METAL™ - ALL PATTERNS

Available in **FUSED BRONZE™**, **FUSED GRAPHITE™**, **FUSED NICKEL SILVER™** and **FUSED WHITE GOLD™**

| | Total Recycled Content | Post-Industrial Recycled Content | Post-Consumer Recycled Content |
|--|-------------------------------|---|---------------------------------------|
| Fused Metal™ Sandstone™ (High Durability Finish) | 86% | 8% | 78% |
| Fused Metal™ Seastone™ (High Durability Finish) | 86% | 8% | 78% |
| Fused Metal™ Linen™ (High Durability Finish) | 86% | 8% | 78% |
| Fused Metal™ Mirror Finish | 86% | 8% | 78% |
| Fused Metal™ Satin Finish | 86% | 8% | 78% |

GREEN BUILDING STANDARDS

LEED®

This product can apply to several LEED® credits, as outlined below. In order to provide knowledgeable assistance to our customers, we 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: 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. Please contact us for more information.

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: 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. Please contact us for more information.

Green Globes®

This product can apply to the Green Globes® credits, as outlined below. 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 Processed or Manufactured Materials** - We have manufacturing facilities in Pittsburgh, PA (15223), Carpinteria, CA (93013), Phoenix, AZ (84043), Santa Fe Springs, CA (90605) and Pune, India. Please contact us for more information.



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: Sustainability 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 is available below.

PRODUCT MATERIALS

| Material | Type | Description | Maint- enance (0-5)* | Inherent Value (0-5)** | Scratch- Resistant | Corrosion/Wear Resistant | Biodegradable | Recyclable |
|-----------------|--------------|--|----------------------------|------------------------------|-----------------------|-----------------------------|---------------|------------|
| Stainless Steel | 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 | | x |
| Stainless Steel | HD Finish | 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

| F+S Facility Processes | Process Description | Vendor Facility Processes | Process Description |
|-------------------------------|--|-------------------------------------|---|
| 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. | 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. |
| Impression | Creates three dimensional images/patterns onto a material by pressing the substrate between two patterns using pressure. | Metal Finishing | Applied using grinding/sanding wheels. Finishing produces a grained or brushed finish on the surface, and depending on the material will increase corrosion resistance. Typically, products are either finished at our vendors facility or at F+S but usually not both. |
| | | Metal Polishing | Applied using polishing wheels with a buffing compound. Polishing produces a mirror-like finish and, depending on the material, may enhance corrosion resistance. For many of our products, initial polishing takes place at the vendor facility and final polishing takes place at our facility. |
| | | 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 |
|-----------------|-------------|---|-----------------|
| Cardboard | Spacer | Used to provide impact cushioning between a product and its package or between two products. | Recycle |
| 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 | Wood crates are 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. |



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 | All of the product components are recyclable. |
| Recycling - Scrap | Materials can be sold for scrap. |



SUMMARY – NO PATTERN

| Category Type | | Sandstone™ (High Durability Finish) | Seastone™ (High Durability Finish) | Linen™ (High Durability Finish) | Mirror | Satin |
|-------------------|--|--|---------------------------------------|------------------------------------|--------|-------|
| Basic | Total Recycled Content | 86% | 86% | 86% | 86% | 86% |
| Basic | Post Industrial Recycled Content | 8% | 8% | 8% | 8% | 8% |
| Basic | Post Consumer Recycled Content | 78% | 78% | 78% | 78% | 78% |
| LEED® | MR: Recycled Content | X | X | X | X | X |
| LEED® | MR: Regional Materials | X | X | X | X | X |
| LEED® India | MR: Recycled Content | X | X | X | X | X |
| LEED® India | MR: Local/Regional Materials | X | X | X | X | X |
| Green Globes® | 10.2.2.1 Recycled Content | X | X | X | X | X |
| Green Globes® | 10.2.4.1 Transportation of Processed or Manufactured Matls | X | X | X | X | X |
| ESTIDAMA | ADMAT1: Major Bldg Elmts | X | X | X | X | X |
| ESTIDAMA | ADMAT5: Sustainable Matls | X | X | X | X | X |
| ESTIDAMA | ADWAS1: Reduction of Waste | X | X | X | X | X |
| Materials | Stainless Steel Fused Metal™ | X | X | X | X | X |
| Materials | Stainless Steel HD Finish | X | X | X | | |
| Processes | Calendaring | X | X | X | | |
| Processes | Eco-Etch | | | | | |
| Processes | Impression | | | | | |
| Processes | Metal Finishing | | | | | X |
| Processes | Metal Polishing | | | | X | |
| Processes | Multi-Ion Vapor Deposition (Fusing) | X | X | X | X | X |
| Processes | Stainless Steel Making | X | X | X | X | X |
| Packaging | Cardboard Spacer | X | X | X | X | X |
| Packaging | Foam Sheets | X | X | X | X | X |
| Packaging | Polyethylene Covering | X | X | X | X | X |
| Packaging | Crate Wood | X | X | X | X | X |
| Transport | Boat Overseas | X | X | X | X | X |
| Transport | Ground Truck/Rail | X | X | X | X | X |
| Maintenance & Use | Clean with Water & Mild Cleaner | X | X | X | X | X |
| Disposal | Recyclable Fully | X | X | X | X | X |
| Disposal | Recycling Scrap | X | X | X | X | X |



SUMMARY – IMPRESSION™ PATTERNS

| Category Type | | Sandstone™ (High Durability Finish) | Seastone™ (High Durability Finish) | Linen™ (High Durability Finish) | Mirror | Satin |
|-------------------|--|--|---------------------------------------|------------------------------------|--------|-------|
| Basic | Total Recycled Content | 86% | 86% | 86% | 86% | 86% |
| Basic | Post Industrial Recycled Content | 8% | 8% | 8% | 8% | 8% |
| Basic | Post Consumer Recycled Content | 78% | 78% | 78% | 78% | 78% |
| LEED® | MR: Recycled Content | X | X | X | X | X |
| LEED® | MR: Regional Materials | X | X | X | X | X |
| LEED® India | MR: Recycled Content | X | X | X | X | X |
| LEED® India | MR: Local/Regional Materials | X | X | X | X | X |
| Green Globes® | 10.2.2.1 Recycled Content | X | X | X | X | X |
| Green Globes® | 10.2.4.1 Transportation of Processed or Manufactured Matls | X | X | X | X | X |
| ESTIDAMA | ADMAT1: Major Bldg Elmts | X | X | X | X | X |
| ESTIDAMA | ADMAT5: Sustainable Matls | X | X | X | X | X |
| ESTIDAMA | ADWAS1: Reduction of Waste | X | X | X | X | X |
| Materials | Stainless Steel Fused Metal™ | X | X | X | X | X |
| Materials | Stainless Steel HD Finish | X | X | X | | |
| Processes | Calandaring | X | X | X | | |
| Processes | Eco-Etch | | | | | |
| Processes | Impression | X | X | X | X | X |
| Processes | Metal Finishing | | | | | X |
| Processes | Metal Polishing | | | | X | |
| Processes | Multi-Ion Vapor Deposition (Fusing) | X | X | X | X | X |
| Processes | Stainless Steel Making | X | X | X | X | X |
| Packaging | Cardboard Spacer | X | X | X | X | X |
| Packaging | Foam Sheets | X | X | X | X | X |
| Packaging | Polyethylene Covering | X | X | X | X | X |
| Packaging | Crate Wood | X | X | X | X | X |
| Transport | Boat Overseas | X | X | X | X | X |
| Transport | Ground Truck/Rail | X | X | X | X | X |
| Maintenance & Use | Clean with Water & Mild Cleaner | X | X | X | X | X |
| Disposal | Recyclable Fully | X | X | X | X | X |
| Disposal | Recycling Scrap | X | X | X | X | X |

Note: Please refer to the Fused Metal™ Product Data Sheet for a list of standard finishes for each pattern



SUMMARY – ECO-ETCH™ PATTERNS

| Category Type | | Sandstone™ (High Durability Finish) | Seastone™ (High Durability Finish) | Linen™ (High Durability Finish) | Mirror | Satin |
|-------------------|--|--|---------------------------------------|------------------------------------|--------|-------|
| Basic | Total Recycled Content | 86% | 86% | 86% | 86% | 86% |
| Basic | Post Industrial Recycled Content | 8% | 8% | 8% | 8% | 8% |
| Basic | Post Consumer Recycled Content | 78% | 78% | 78% | 78% | 78% |
| LEED® | MR: Recycled Content | X | X | X | X | X |
| LEED® | MR: Regional Materials | X | X | X | X | X |
| LEED® India | MR: Recycled Content | X | X | X | X | X |
| LEED® India | MR: Local/Regional Materials | X | X | X | X | X |
| Green Globes® | 10.2.2.1 Recycled Content | X | X | X | X | X |
| Green Globes® | 10.2.4.1 Transportation of Processed or Manufactured Matls | X | X | X | X | X |
| ESTIDAMA | ADMAT1: Major Bldg Elmts | X | X | X | X | X |
| ESTIDAMA | ADMAT5: Sustainable Matls | X | X | X | X | X |
| ESTIDAMA | ADWAS1: Reduction of Waste | X | X | X | X | X |
| Materials | Stainless Steel Fused Metal™ | X | X | X | X | X |
| Materials | Stainless Steel HD Finish | X | X | X | | |
| Processes | Calandaring | X | X | X | | |
| Processes | Eco-Etch | X | X | X | X | X |
| Processes | Impression | | | | | |
| Processes | Metal Finishing | | | | | X |
| Processes | Metal Polishing | | | | X | |
| Processes | Multi-Ion Vapor Deposition (Fusing) | X | X | X | X | X |
| Processes | Stainless Steel Making | X | X | X | X | X |
| Packaging | Cardboard Spacer | X | X | X | X | X |
| Packaging | Foam Sheets | X | X | X | X | X |
| Packaging | Polyethylene Covering | X | X | X | X | X |
| Packaging | Crate Wood | X | X | X | X | X |
| Transport | Boat Overseas | X | X | X | X | X |
| Transport | Ground Truck/Rail | X | X | X | X | X |
| Maintenance & Use | Clean with Water & Mild Cleaner | X | X | X | X | X |
| Disposal | Recyclable Fully | X | X | X | X | X |
| Disposal | Recycling Scrap | X | X | X | X | X |

Note: Please refer to the Fused Metal™ Product Data Sheet for a list of standard finishes for each pattern



SUMMARY – FUSION™ PATTERNS

| Category Type | | Sandstone™ (High Durability Finish) | Seastone™ (High Durability Finish) | Linen™ (High Durability Finish) | Mirror | Satin |
|-------------------|--|--|---------------------------------------|------------------------------------|--------|-------|
| Basic | Total Recycled Content | 86% | 86% | 86% | 86% | 86% |
| Basic | Post Industrial Recycled Content | 8% | 8% | 8% | 8% | 8% |
| Basic | Post Consumer Recycled Content | 78% | 78% | 78% | 78% | 78% |
| LEED® | MR: Recycled Content | X | X | X | X | X |
| LEED® | MR: Regional Materials | X | X | X | X | X |
| LEED® India | MR: Recycled Content | X | X | X | X | X |
| LEED® India | MR: Local/Regional Materials | X | X | X | X | X |
| Green Globes® | 10.2.2.1 Recycled Content | X | X | X | X | X |
| Green Globes® | 10.2.4.1 Transportation of Processed or Manufactured Matls | X | X | X | X | X |
| ESTIDAMA | ADMAT1: Major Bldg Elmts | X | X | X | X | X |
| ESTIDAMA | ADMAT5: Sustainable Matls | X | X | X | X | X |
| ESTIDAMA | ADWAS1: Reduction of Waste | X | X | X | X | X |
| Materials | Stainless Steel Fused Metal™ | X | X | X | X | X |
| Materials | Stainless Steel HD Finish | X | X | X | | |
| Processes | Calandaring | X | X | X | | |
| Processes | Eco-Etch | X | X | X | X | X |
| Processes | Impression | X | X | X | X | X |
| Processes | Metal Finishing | | | | | X |
| Processes | Metal Polishing | | | | X | |
| Processes | Multi-Ion Vapor Deposition (Fusing) | X | X | X | X | X |
| Processes | Stainless Steel Making | X | X | X | X | X |
| Packaging | Cardboard Spacer | X | X | X | X | X |
| Packaging | Foam Sheets | X | X | X | X | X |
| Packaging | Polyethylene Covering | X | X | X | X | X |
| Packaging | Crate Wood | X | X | X | X | X |
| Transport | Boat Overseas | X | X | X | X | X |
| Transport | Ground Truck/Rail | X | X | X | X | X |
| Maintenance & Use | Clean with Water & Mild Cleaner | X | X | X | X | X |
| Disposal | Recyclable Fully | X | X | X | X | X |
| Disposal | Recycling Scrap | X | X | X | X | X |

Note: Please refer to the Fused Metal™ Product Data Sheet for a list of standard finishes for each pattern



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.

