**FUSED METAL**

**Fused Metal** is Forms+Surfaces’ exclusive line of colored stainless steel. We use vapor deposition technology to fuse titanium alloys at the molecular level to stainless steel substrates. Fused Metal provides the durability and low maintenance of stainless steel with a range of rich color options that includes Fused Bronze, Fused Graphite, Fused Nickel Silver and Fused White Gold.

For applications that require exceptional resistance to abrasion and wear, select among our High-Durability finishes including Sandstone, Seastone and Linen. These work-hardened surfaces are extraordinarily durable and perfect for high-traffic public areas.

**MATERIAL DESCRIPTION**

Fused Metal selections are defined by three basic parameters that are key to product specification:

<table>
<thead>
<tr>
<th>COLOR</th>
<th>FINISH</th>
<th>PATTERN</th>
<th>TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose a metal: Fused Bronze, Fused Graphite, Fused Nickel Bronze, Fused Nickel Silver or Fused White Gold.</td>
<td>A variety of distinctive finishes are available including standard and High-Durability options. Please see pages two through four for available finish options for each Fused Metal.</td>
<td>The pattern will be applied to the metal/finish combination you have selected. Standard Impression, Eco-Etch and Fusion patterns are shown on pages five through ten. Custom patterns can also be requested.</td>
<td>Ceramiloc treatment is an invisible, protective treatment that significantly increases the fingerprint resistance and maintenance ease of Fused Metal. Ceramiloc is available with any finish and pattern that does not incorporate Mirror finish.</td>
</tr>
</tbody>
</table>

**PRODUCTS & APPLICATIONS**

**SHEET GOODS**

- Includes our full line of stainless steel materials in standard sheet sizes or sheared to your specifications. Standard sheet size is nominal 48" x 120" (1219 mm x 3048 mm). Due to processing requirements of Fused Metal, actual usable sheet size is approximately 48" x 119.25" (1219 mm x 3029 mm).
- Fused Metal is available in two thicknesses. The .032" (0.8 mm) thickness has a standard weight of approximately 1.6 lbs./sq. ft (7.8 kg/sq. m) and the .063" (1.5mm) thickness weighs approximately 2.5 lbs./sq. ft (12.2 kg/sq. m).
- Edge returns and many other add-on features are available.

**LEVELc® WALL SYSTEMS & ELEVATOR INTERIORS**

- Fused Metal is available as standard inset panel options in LEVELe Wall Cladding System & LEVELe Elevator Interiors.
- For LEVELe Wall Systems, Fused Metal can be used with Minimal, Capture, Float and Blind panel types.
- Fused Metal can be used as an infill option in railings. Please contact us for additional information on how to incorporate into your application.

**RAILING INFILL PANELS**

- Fused Metal may be specified as durable and highly attractive skins for elevator doors or hoistway doors.

**ARCHITECTURAL ACCENTS**

- Trim, wainscoting, counter facings and more.

**DOORS**

- Fused Metal door choices include Eco-Etch, Impression, Stile & Rail and System 7 Doors. Many models are available with a full range of UL® fire labeling options.
- Fused Metal is available as facing material for our LEVELc-1000A Elevator Interiors and as standard inset panel options or as cladding on stiles and rails in our LEVELc-2000N Elevator Interiors.
- Fused Metal may be specified as durable and highly attractive skins for elevator doors or hoistway doors.
- For round, square or irregularly shaped columns.

**PROTECTIVE FILM**

All Fused Metal supplied as sheet goods and in our systems products comes with a protective film for added protection during transportation, machining and installation. Even with the protective film, care should be taken while handling the product. We recommended leaving the film on during installation.

**MAINTENANCE & FIRE RATING**

**MAINTENANCE**

- Fingerprints and smudges can be removed using a non-chlorinated spray cleaner/degreaser such as Simple Green® and a microfiber cloth. Do not use harsh abrasives, acids or chlorine-based cleaners or cleaning tools containing carbon steel, such as steel wool or wire brushes.

**FIRE RATING**

- Architectural Metals are inherently non-combustible and generally considered to be NFPA and IBC Class A fire rated and UBC Class 1 fire rated.
FINISH OPTIONS

Fused Metal is available in a variety of distinctive finishes including standard and High-Durability options. High-Durability finishes—designated by the “HD” logo below—are manufactured in a process that creates a work-hardened surface with enhanced resistance to abrasion and wear.

FUSED BRONZE™

FUSED GRAPHITE™

© 2019 Forms+Surfaces® | All dimensions are nominal. Specifications and pricing subject to change without notice. For the most current version of this document, please refer to our website at www.forms-surfaces.com.
FUSED NICKEL BRONZE™

SANDSTONE  |  SEASTONE  |  LINEN

DIAMOND  |  MIRROR  |  SATIN

FUSED NICKEL SILVER™

SANDSTONE  |  SEASTONE  |  LINEN

DIAMOND  |  MIRROR  |  SATIN

Note: Because different computers will render colors and textures differently, actual finishes may vary from those shown.
FUSED WHITE GOLD™

SANDSTONE

SEASTONE

LINEN

DIAMOND

MIRROR

SATIN

Note: Because different computers will render colors and textures differently, actual finishes may vary from those shown.
PATTERN OPTIONS

Patterns are optional applied designs that add visual interest and expanded customization potential to Fused Metal surfaces. From a functional standpoint, patterns pick up where metals and finishes leave off. Forms+Surfaces Fused Metal patterns are grouped into three broad categories: Impression, Eco-Etch and Fusion.

IMPRESSION™ PATTERN OPTIONS

Forms+Surfaces proprietary manufacturing capabilities include large-scale stamping equipment that can apply unique, full-press patterns across an entire sheet of material using a single tool. The result is a series of beautiful, high-relief patterns that add visual impact, enhanced durability and a rich, tactile feel. Some Impression patterns are also available in other materials such as Stainless Steel and our exclusive Bonded Quartz and Bonded Metal®, making it easy to carry a design theme throughout an installation in a variety of materials.

| SHEET THICKNESS | 0.32" (0.8 mm) |
| SHEET SIZE      | 48" x 120" (1219 mm x 3048mm) |
| HEIGHT          | 0.147" (3.7 mm) |

Scale Approximately: 1:1

Note: Pattern is available in horizontal or vertical orientation
### Denver™

**Sheet Thickness**: 0.032" (0.8 mm)  
**Sheet Size**: 48" x 120" (1219 mm x 3048 mm)  
**Height (H)**: 0.053" (1.3 mm)  

![Denver™ Pattern](image)

**Scale Approximately**: 1:1

**Note**: Pattern is available in horizontal or vertical orientation

### Dune™

**Sheet Thickness**: 0.032" (0.8 mm)  
**Sheet Size**: 48" x 120" (1219 mm x 3048 mm)

![Dune™ Pattern](image)

**Scale Approximately**: 1:1

### Kalahari™

**Sheet Thickness**: 0.032" (0.8 mm)  
**Sheet Size**: 48" x 120" (1219 mm x 3048 mm)  
**Height**: 0.106" (2.7 mm)  

![Kalahari™ Pattern](image)

**Scale Approximately**: 1:1
<table>
<thead>
<tr>
<th>EMBOSSURE SIZES</th>
<th>.312&quot; dia.</th>
<th>.375&quot; dia.</th>
<th>.50&quot; dia.</th>
<th>.75&quot; dia.</th>
<th>1.0&quot; dia.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MINIMUM VERTICAL AND HORIZONTAL SPACING</td>
<td>2&quot; c.c.</td>
<td>2&quot; c.c.</td>
<td>2&quot; c.c.</td>
<td>2&quot; c.c.</td>
<td>3&quot; c.c.</td>
</tr>
<tr>
<td>HEIGHT (H)</td>
<td>.08&quot; (2 mm)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**EMBOSSURE SIZES**

- .312" dia.
- .375" dia.
- .50" dia.
- .75" dia.
- 1.0" dia.

**MINIMUM VERTICAL AND HORIZONTAL SPACING**

- 2" c.c.
- 2" c.c.
- 2" c.c.
- 2" c.c.
- 3" c.c.

**HEIGHT (H)**

- .08" (2 mm)

**SHEET THICKNESSES**

- .032" (0.8 mm)
- .063" (1.5 mm)

**SHEET SIZE**

- 48" x 120" (1219 mm x 3048 mm)

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**EMBOSSURE SIZES**

- .375" dia.
- .50" dia.
- .625" dia.
- 1" dia.
- 1.5" dia.

**MINIMUM VERTICAL AND HORIZONTAL SPACING**

- 2" c.c.
- 2" c.c.
- 2" c.c.
- 3" c.c.
- 4" c.c.

**HEIGHT (H)**

- .06" (1.5 mm)

**SHEET THICKNESSES**

- .032" (0.8 mm)
- .063" (1.5 mm)

**SHEET SIZE**

- 48" x 120" (1219 mm x 3048 mm)

---

**EMBOSSURE SIZE**

- .88" x 1.4" (22 mm x 36 mm)

**MINIMUM VERTICAL SPACING**

- 3" c.c.

**MINIMUM HORIZONTAL SPACING**

- 3" c.c.

**HEIGHT (H)**

- .134" (3.4 mm)

**SHEET THICKNESSES**

- .032" (0.8 mm)
- .063" (1.5 mm)

**SHEET SIZE**

- 48" x 120" (1219 mm x 3048 mm)

---

**EMBOSSURE SIZE**

- .25" x 1" (6 mm x 25 mm)

**MINIMUM VERTICAL SPACING**

- 1.5" c.c.

**MINIMUM HORIZONTAL SPACING**

- 1" c.c.

**HEIGHT (H)**

- .075" (1.9 mm)

**SHEET THICKNESSES**

- .032" (0.8 mm)
- .063" (1.5 mm)

**SHEET SIZE**

- 48" x 120" (1219 mm x 3048 mm)
ECO-ETCH®

Beautiful etched designs are applied to Fused Metal using an advanced photolithographic bead-blasting system instead of acids or other harmful chemicals.

Advantages of the Eco-Etch process include:

<table>
<thead>
<tr>
<th>SIZE</th>
<th>SPEED</th>
<th>CONSISTENCY</th>
<th>ECOLOGICALLY RESPONSIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>The largest physical etching system in North America, our equipment can handle materials up to two meters wide by six meters long. Standard sheet size of 48” x 120” and standard sheet thicknesses of 0.8 mm and 1.5 mm are available.</td>
<td>The physical etching process can be completed in a fraction of the time required for traditional chemical etching.</td>
<td>Our proprietary computer-controlled system ensures an even blast pressure and a consistent finish, even on the largest surfaces.</td>
<td>Because our Eco-Etch is physically applied, it does not require etching acid or other harmful chemicals and no toxic waste is generated. The beads used in the process are contained within a closed chamber; used beads are recycled and returned to the process for reuse.</td>
</tr>
</tbody>
</table>

STANDARD AND CUSTOM ECO-ETCH PATTERNS

Standard designs include both overall and full-sheet patterns. Eco-Etch doors and elevator door skins also come in their own range of patterns optimized for door face applications. Please note that our standard patterns are only starting points; the flexibility and speed of our Eco-Etch system allow a wealth of design options with artwork supplied by the specifier or developed by Forms+Surfaces.

STANDARD ECO-ETCH PATTERNS

- CITY LIGHTS™
- CURRENT™
- DASH™
- FLICKER™
- GLACIER™
- MICA™
STANDARD ECO-ETCH PATTERNS cont.

- REEDS™
- SEAGRASS™
- SEQUENCE™
- SILKWMORM™
- STACKS™
- STRIPE™
- THATCH™
- TRACE™

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**FUSION™**

**Fusion** is a collection of surfaces created by the Forms+Surfaces Design Studio. As the name implies, each design is created by combining two or more pattern types, including Impression, Eco-Etch and Screens, to create a unique and visually intriguing surface.

<table>
<thead>
<tr>
<th>SHEET THICKNESS</th>
<th>.032&quot; (0.8 mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHEET SIZE</td>
<td>48&quot; x 120&quot; (1219 mm x 3048 mm)</td>
</tr>
<tr>
<td>HEIGHT</td>
<td>1/2&quot; (1.3 mm)</td>
</tr>
</tbody>
</table>

**Note:** Pattern is available in horizontal or vertical orientation
CUSTOM PATTERNS

As the international leader in high-quality Fused Metal, Forms+Surfaces is always willing to consider custom pattern variations and modifications to meet specific project needs. Please contact us to discuss your requirements.

STANDARD FUSED METAL FINISH AND PATTERN COMBINATIONS

<table>
<thead>
<tr>
<th>IMPRESSION</th>
<th>ECO-ETCH</th>
<th>FUSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flat (No Pattern)</td>
<td>Champagne</td>
<td>Chardonnay</td>
</tr>
</tbody>
</table>

(Fused Bronze, Fused Graphite, Fused Nickel Bronze, Fused Nickel Silver or Fused White Gold)

- Sandstone
- Seastone
- Linen
- Diamond
- Mirror
- Satin

ENVIRONMENTAL CONSIDERATIONS

Please refer to the Fused Metal Environmental Data Sheets for detailed environmental impact information.

HOW TO SPECIFY

To order please indicate material, finish, pattern and quantity.