# Forms + Surfaces



**Bonded Metal** has achieved a place of distinction among high-performance surfacing materials. Providing a striking breadth of design possibilities, Bonded Metal is the product of a unique technology that casts metal granules in a tough, fiber-reinforced polymer matrix. Advanced mold-making techniques assure perfect reproduction of every fine detail in the original patterned surface. The result is lightweight, extremely durable castings with the character and appearance of solid metal. Field-proven for more than 50 years, Bonded Metal is exclusive to Forms+Surfaces.

## **Material Description**

Bonded Metal is defined by three parameters that are key to product specification:

Parameter	Description	Page
Material	The metal incorporated into the composite that gives the surface its color and character. Slight variation in color can occur due to the nature of the Bonded Metal manufacturing process.	2
Patina	A contrast-enhancing surface treatment applied to the Bonded Metal.	2
Pattern	The distinctive texture or design cast into the Bonded Metal surface.	3-7

#### Products & Applications\*

Bonded Metal can be used in the F+S Systems listed below or specified as sheet goods for custom applications.

# F+S Systems

- LEVELr Wall Panel & Column System
- LEVELe Wall Panel & Column System
- LEVELr Elevator Interiors
- LEVELe Elevator Interiors
- · LEVELc-2000 Elevator Interiors
- · Elevator Door Skins

# **Sheet Goods**

Depending on the application, different casting types may be better suited.

- **Standard castings** are available in a range of thicknesses that vary per pattern. Standard castings can be factory-laminated to a variety of backer materials. Application directly to drywall is not recommended.
- Backed castings provide a greater range of installation options using either adhesives or fasteners. Backer options include 1/4" (6 mm), 1/2" (13 mm), or 3/4" (19 mm) fire-rated particleboard or 6mm, 8mm, or 10mm polycarbonate.

Forms+Surfaces recommends either a minimum 1/8" (3 mm) reveal or a trim detail between sheets. Exposed edges of casting should be protected by trim or other material.

<sup>\*</sup>Bonded Metal is intended to be an attractive and durable cladding material and should not be used as a structural element nor should it be used to provide reinforcing or bracing for structural embers.



#### **Bonded Metal Characteristics**

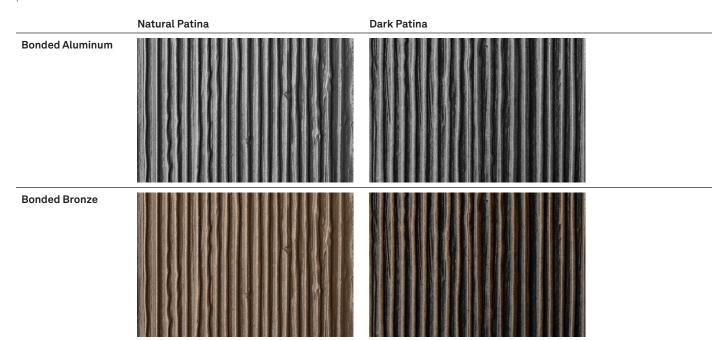
Aspect	Description			
Environment	Suitable for interior and select exterior applications. When installed outdoors, it is normal for the surface to weather over time to a deeper patina. Bonded Metal does not absorb moisture and should not rot or rust.			
Fire Rating	Bonded Metal is NFPA and IBC class B fire rated and UBC class 2 fire rated.			
Routine Maintenance	The Bonded Metal surface has been sealed with a high-quality interior/exterior acrylic lacquer. It is a hard, durable finish that will last for many years but can be damaged if cleaned improperly. Avoid using harsh abrasives. If solvents are ever required for cleaning only naphtha or other aliphatic hydrocarbons should be used. Additional details can be found in the Architectural Materials Care & Maintenance document on our website.			

#### **Specification Parameters**

As summarized on page 1, Bonded Metal is defined by three parameters that are key to product specification: material, patina, and pattern. The information below and on the following pages goes into more detail about each.

#### Standard Color & Patina Options

Bonded Metal is available in your choice of Natural or Dark patina. Options vary per Bonded Metal color and pattern as shown on pages 3-6. A Natural patina provides subtler, more even tonal gradations; Dark patina heightens the contrast between highlights and shadows for a more pronounced three-dimensional effect.

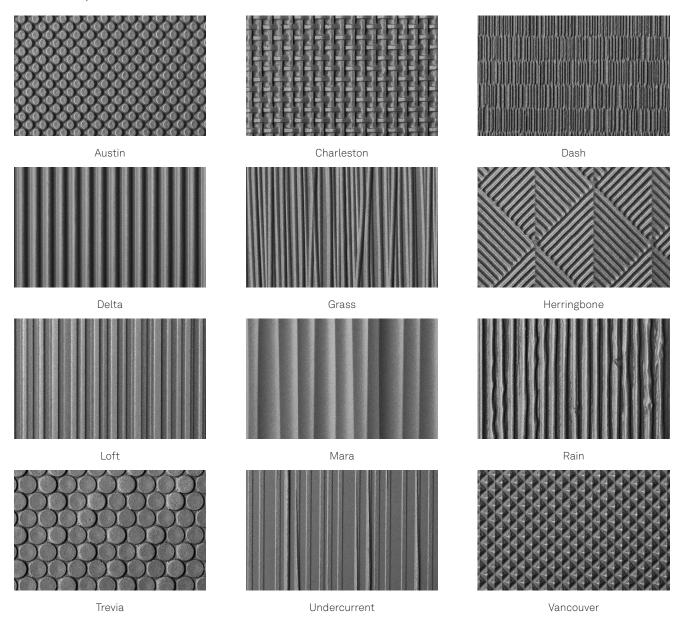




# Standard Pattern & Color Options

All of the patterns shown on pages 3-6 are available as standard options.

# Bonded Aluminum, Natural Patina

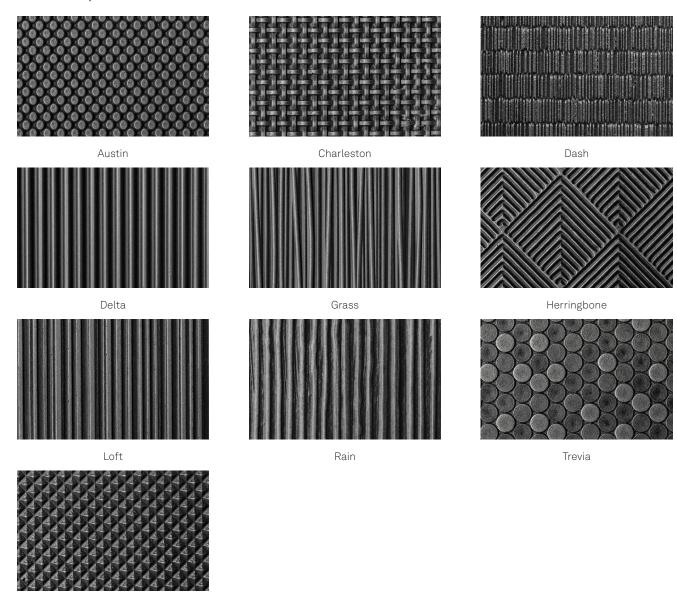


Note: Because different computers will render colors and textures differently, actual finishes may vary from those shown.



# Standard Pattern & Color Options, continued

# Bonded Aluminum, Dark Patina



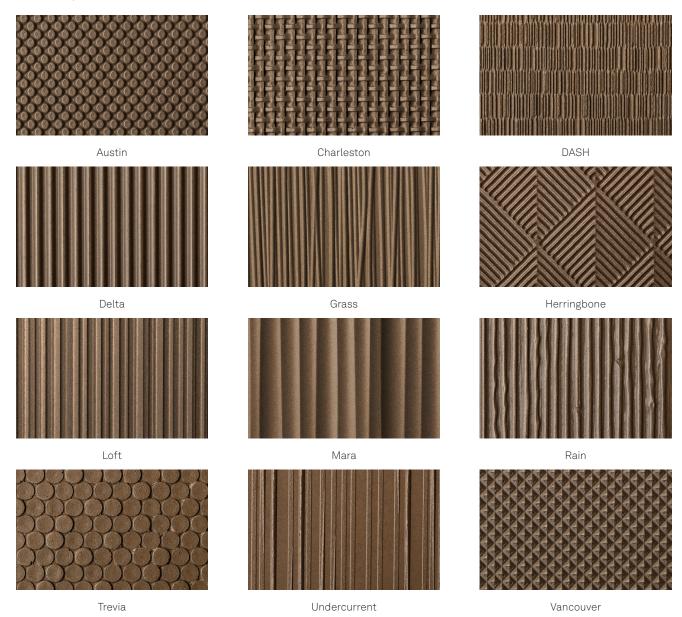
Note: Because different computers will render colors and textures differently, actual finishes may vary from those shown.

Vancouver



# Standard Pattern & Color Options, continued

#### Bonded Bronze, Natural Patina



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



# Standard Pattern & Color Options, continued

# Bonded Bronze, Dark Patina



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

Vancouver



#### **Material Specifications**

The chart below is arranged by sheet thickness and shows sheet size dimensions for all Bonded Metal castings. The face layer of the cast matrix that makes up Bonded Metal ranges from 0.018-0.035". Castings may be specified in any sheet size up to the maximum indicated in the chart. For backed castings, simply add the thickness of your preferred backer to the casting thickness shown.

D.H.	Patina		2	
Pattern	Natural	Dark	Sheet Thickness	Sheet Size
Loft	•	•	0.106" (2.7 mm)	47.8" x 119.8" (1215 x 3045 mm)
Rain	•	•	0.110" (2.8 mm)	47.9" x 120" (1219 x 3048 mm)
Trevia	•	•	0.118" (3.0 mm)	47.9" x 120" (1219 x 3048 mm)
Undercurrent	•		0.129" (3.3 mm)	47.6" x 119.4" (1210 x 3035 mm)
Austin	•	•	0.129" (3.3 mm)	47.2" x 119.6" (1200 x 3038 mm)
Dash	•	•	0.133" (3.4 mm)	47.5" x 119.4" (1207 x 3035 mm)
Grass	•	•	0.133" (3.4 mm)	47.9" x 120" (1219 x 3048 mm)
Vancouver	•	•	0.137" (3.5 mm)	47.6" x 119.7" (1210 x 3042 mm)
Charleston	•	•	0.137" (3.5 mm)	35.9" x 119.8" (914 x 3045 mm)
Herringbone (H)	•	•	0.137" (3.5 mm)	47.9" x 120" (1219 x 3048 mm)
Herringbone (V)	•	•	0.137" (3.5 mm)	47.9" x 120" (1219 x 3048 mm)
Delta (H)	•	•	0.149" (3.8 mm)	47.9" x 120" (1219 x 3048 mm)
Delta (V)	•	•	0.149" (3.8 mm)	47.9" x 120" (1219 x 3048 mm)
Mara (H)	•		0.200" (5.1 mm)	47.6" x 119.6" (1210 x 3040 mm)
Mara (V)	•		0.200" (5.1 mm)	47.6" x 119.6" (1210 x 3040 mm)

#### **Curved Profile**

The minimum radius achievable varies depending on the thickness, pattern, and degree of relief. Standard castings can generally be applied to curved surfaces with radii down to about 18" (450mm). Curved profile must to be in same orientation as the pattern.

### Customization

Forms+Surfaces is always willing to consider custom variations and modifications to meet specific project needs. Please contact us to discuss your requirements.

#### **Environmental Considerations**

Please refer to the Bonded Metal Environmental Data Sheets for detailed environmental impact information. For more information on our sustainability mission visit our website.

#### **How To Specify**

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