Spectura™ Steel

Spectura Steel is a pre-finished steel sheet with a thin, clear coating that acts as an interference layer on the base steel and creates a spectrum of color as the angle of view or the angle of illumination changes. Spectura's dynamic, vibrant, color-bending coating adds an element of variability that ensures that every sheet is unique. Architects and designers can use Spectura to bring colorful, artistic elements to interiors.

MAIN FEATURES AND CHARACTERISTICS

- Dynamic and vibrantly hued surface that brings visual interest to any project.
- Produced using environmentally friendly manufacturing practices in our award-winning, EPA-compliant facility.
- Availability in a wide variety of sheet thicknesses, sizes and order quantities to fit almost any project and budget.
- 100% metal construction means familiar and common fabrication techniques, a non-combustible surface, and easy recyclability at end-of-life.

AVAILABLE ALLOYS, THICKNESSES AND SIZES

Spectura Steel is available as a single-sided product in a variety of sheet thicknesses and sizes.

Refer to the table below for more detailed information.

Thickness and Size Availability

Gauge ["]	Sheet Sizes					
	4′ x 8′	4′ x 10′	4′ x 12′	5′ x 8′	5′ x 10′	5′ x 12′
20 ga [0.038"]	available single-sided only				not available	
18 ga [0.050"]						
16 ga [0.063"]						
14 ga [0.078"]						
12 ga [0.109"]			not available			
11 ga [0.125"]						
3/16″ [0.188"]						

DIMENSIONS AND TOLERANCES

Dimensional tolerances for Spectura Steel are provided in the table below.

Dimensional Tolerances

Property	Unit	Value
Width	in	+1/8, -0
Length	in	+3/8, -0
Flatness[1]	in	0.4

[1] Maximum deviation from a horizontal, flat surface.

PATTERN AND COLOR

Spectura Steel is made to order by Zahner artisans, using an accelerated patination process that results in an oxide layer that is subject to natural variations in color and pattern.

No two sheets of are identical. If anticipating the need for additional sheets in the future, it is recommended to order these at the time of initial order to minimize batch-to-batch variation.

MATERIAL AND PHYSICAL PROPERTIES

Spectura Steel is a cold-rolled steel. Select material and physical properties are presented in the table below.

Select Material and Physical Properties

Property	Unit	Value
Density	lbs/ft^3	491
Coefficient of Thermal Expansion	in/in/°F	7.0×10^{-6}

FLAMMABILITY

Spectura Steel is a non-combustible material.

OUTDOOR USE AND LIMITATIONS

Spectura Steel can only be used in interior applications, should not be used near water or wet environments, and should be installed in areas subject to climate controlled conditions.

FABRICATION GUIDELINES

Please follow the guidelines for fabricating sheets of Spectura Steel.

General notes for all fabrication

- Follow best-practices in regards to proper occupational health and safety measures, such as the wearing of eye protection, and the use of respirator devices when grinding or polishing.
- Prior to fabrication for your project, it is strongly recommended that any fabrication steps be tested on sample material or fall-off.

Cutting and Drilling

Use high-speed steel, heavy-duty machine drill bits at the proper speed when drilling holes.

Spectura Steel may be cut using a shear for simple linear cuts. The use of cardboard or other surface protection measures are recommended to protect the surface from oils and other debris.

For the cutting of simple curves and forms, manual cutting methods appropriate for steel, eg, a cutting wheel, or jigsaw with the proper blade, will suffice.

For the cutting of complex and/or detailed shapes, CNC methods, such a laser cutting machine capable of cutting steel, or plasma, is recommended. For appropriate cutting parameters (speed, power, etc), please reference the manufacturer's recommended settings for steel.

Bending

Spectura Steel can be bent to a variety of forms using commonly practiced sheet-metal bending techniques. To maintain the appearance of the Spectura Steel surface, the following best-practices are recommended:

- DO use a brake-press with a properly sized punch and die.
- DO use Rhino Hide or an equivalent aid to protect the surface.
- DO NOT bend to an outside radius less than 2.5x the thickness of the sheet.

Welding and Soldering

Spectura Steel is compatible with all steel welding methods, including stud welding techniques.

Note that the surface of the welds will not match the Oscura finish. Therefore, it is recommended that designs that require welding take this into account and locate the welds where they will be hidden from view.

Gluing

Spectura Steel is compatible with a variety of common adhesives designed for metals. Follow the manufacturer's recommended procedures for steel/metal when bonding Spectura Steel to other materials.

STORAGE AND HANDLING

Spectura Steel should be stored in its original packaging in a dry, indoor location away from direct sunlight. Store the product on flat, level ground. Keep in a low-traffic location to help protect all edges from incidental damage. Any protective masking, if applied, should be removed within 6 months of the date of shipment.

- Do not store outside, in direct sunlight, or in wet environments.
- Do not stack objects on top of the products or packaging.

Handling

When handling Spectura Steel, the wearing of cotton, nitrile or latex gloves is recommended to prevent dirt and oils from contaminating the finish. When carrying or manually transporting, take all necessary precautions to prevent denting, scratching or other damage to the finish. If temporarily setting sheets of Spectura Steel on an edge, the use of wood blocking and/or shop towels is recommended between the sheet's edge and the ground in order to prevent denting or deforming of the edge.

CLEANING

Clean Spectura Steel only when required to remove dirt, dust or other visibile surface debris.

To clean, use warm soapy water and a clean, soft cotton cloth, followed by a thorough rinse using clean water. Immediately wipe dry with a clean, soft cotton cloth. Do not allow water to remain on the surface.

If a more aggressive cleaning solution is required, Isopropyl Alcohol, Windex® Original Glass Cleaner, or Windex Vinegar Glass Cleaner can also be used. Clean and immediately wipe dry with a clean, soft cotton cloth.

Do not use cleaners that contain abrasives, as these will damage the Spectura Steel finish.

Whenever cleaning Spectura for the first time, test in an inconspicuous area. If no damage to the finish occurs, proceed with cleaning. Clean the entire surface equally - clean all the way to any edge or joint - to avoid visible differences in appearance.

END OF LIFE AND DISPOSAL

Spectura Steel can be recycled at end of life using the existing scrap and recycling streams for metals.