

WHEELING-NIPPON STEEL

DEPARTMENT OF COATED PRODUCTS

WHEELING-NIPPON STEEL gained this reputation by being the only steel coating facility in the United States to produce all major hot-dip coated products under one roof. We have now expanded this product universe with the addition of the next generation of coated products ---- ZAM®. This newest product offering raises the bar by setting a new standard for corrosion resistance and positions WHEELING-NIPPON STEEL as the industry leader for the 21st century.

Over the years WHEELING-NIPPON STEEL has taken advantage of the flexibility provided by two fully-computerized coating lines with a broad product base and the capability of reacting to market trends. The AGL has been operating successfully since 1988 and the CGL since 1993. Both multi-product lines have a long standing reputation for producing high quality, cost effective corrosion resistant sheet product.

WHEELING-NIPPON STEEL's mission is to encourage a concept of continuous improvement among our dedicated employees that translates into providing a superior product to a diverse customer base. A customer base that will expand even more with the introduction of ZAM®.

GALVANIZED

ZINC COATED SHEET (GALVANIZED PLUS AVAILABLE)

WHEELING-NIPPON STEEL's hot dipped galvanized sheet boasts superior flatness, a spangle free surface, and excellent drawability. In addition, due to WHEELING-NIPPON STEEL's dual coating lines we have the capability to produce a wide range of sizes and steel grades.

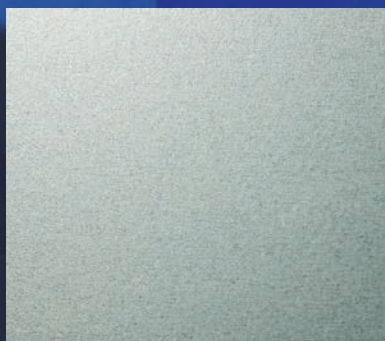
Our galvanized product proves useful in a variety of applications including automotive, roofing, cladding, building panels, doors, door frames, partitions, oil pans, garbage cans, domestic appliances, HVAC, etc.

THE RUN DOWN

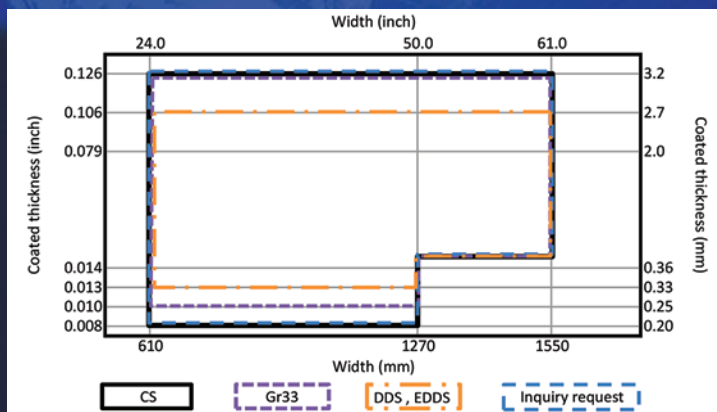
- MATERIAL THICKNESS** ▶ 0.008" through 0.130"
- MATERIAL WIDTH** ▶ 24" through 61"
- ASTM SPECIFICATION** ▶ ASTM A653
- STEEL GRADES**
 - ▶ Commercial Steel
 - ▶ Extra Deep Drawing Steel
 - ▶ HSLA Steel Grades
 - ▶ Deep Drawing Steel
 - ▶ Forming Steel
 - ▶ Structural Steel Grades
- COATING WEIGHT**
 - ▶ G30
 - ▶ G40
 - ▶ G60
 - ▶ G90
 - ▶ G100
 - ▶ G115
 - ▶ G140
 - ▶ G185

(UL and Other Coating Weights Available, Please Inquire)
- COIL WEIGHT** ▶ 10,000 lbs. maximum through 55,000 lbs. maximum
- COIL ID** ▶ 20" and 24"
- AFTER TREATMENT (UPON REQUEST)**
 - ▶ Chemical Treatment *(RoHS Compliant Available)*
 - ▶ Oiling
 - ▶ Acrylic *(RoHS Compliant, Please Inquire)*
 - ▶ Stenciling

SIZE CHART



ACTUAL MATERIAL



GALVALUME®

55% ALUMINUM-ZINC ALLOY COATED SHEET (GALVALUME® PLUS AVAILABLE)

A high level of corrosion resistance, superior flatness, and an excellent surface suitable for painting are a few attributes that characterize WHEELING-NIPPON STEEL's Galvalume® coated product.

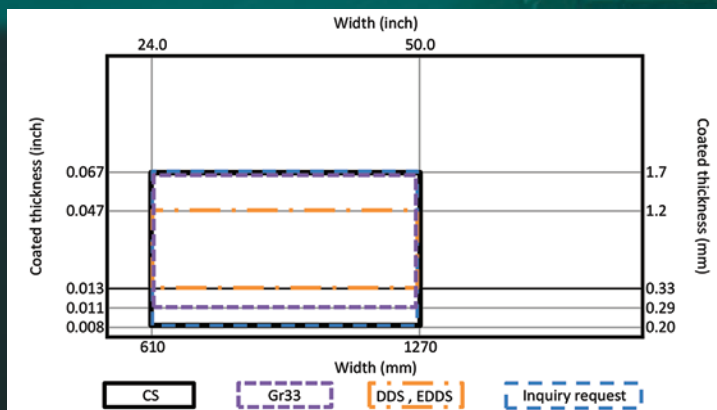
This product can be used in a wide variety of applications including roofing, building panels-both painted and bare, wall panels, computer cases, furnace parts, drain pans, microwave oven frames, duct work, etc.

THE RUN DOWN

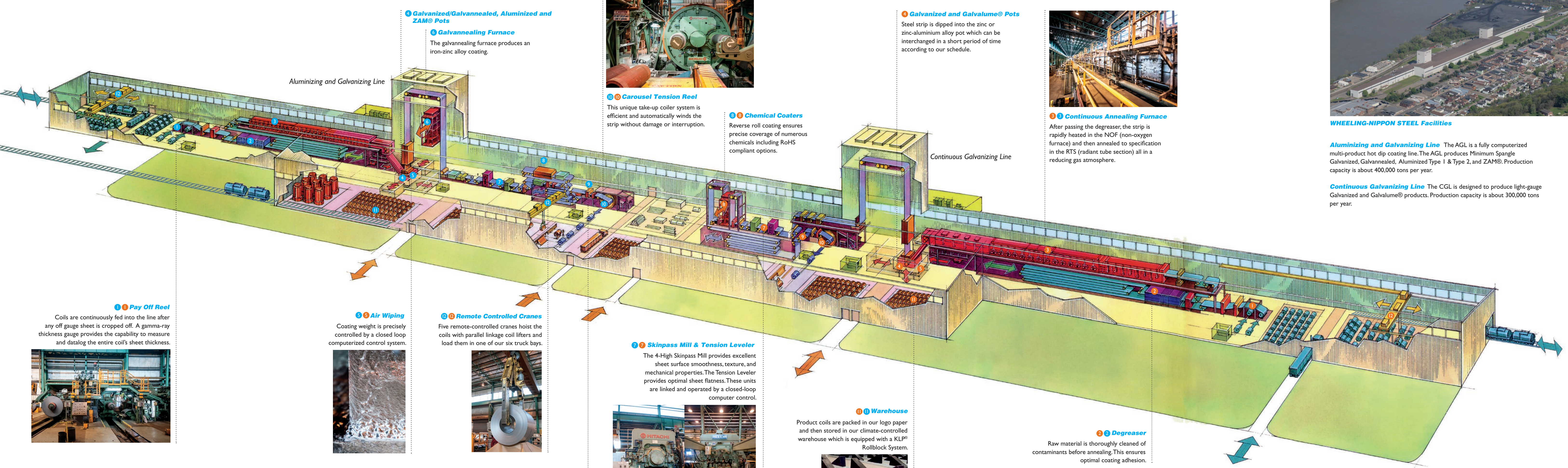
- MATERIAL THICKNESS** ▶ 0.008" through 0.068"
- MATERIAL WIDTH** ▶ 24" through 50"
- ASTM SPECIFICATION** ▶ ASTM A792
- STEEL GRADES**
 - ▶ Commercial Steel
 - ▶ Drawing Steel
 - ▶ Forming Steel
 - ▶ Structural Steel Grades
- COATING WEIGHT**
 - ▶ AZ30
 - ▶ AZ35
 - ▶ AZ40
 - ▶ AZ50
 - ▶ AZ55
 - ▶ AZ60

(UL Coating Weights Available, Please Inquire)
(AZ50, AZ55, AZ60 Galvalume®)
- COIL WEIGHT** ▶ 10,000 lbs. maximum through 55,000 lbs. maximum
- COIL ID** ▶ 20" and 24"
- AFTER TREATMENT (UPON REQUEST)**
 - ▶ Chemical Treatment (RoHS Compliant Available)
 - ▶ Oiling
 - ▶ Acrylic (RoHS Compliant, Please Inquire)
 - ▶ Stenciling

SIZE CHART



ACTUAL MATERIAL



4 Galvanized/Galvalume®, Aluminized and ZAM® Pots

6 Galvannealing Furnace
The galvannealing furnace produces an iron-zinc alloy coating.

10 Carousel Tension Reel

This unique take-up coiler system is efficient and automatically winds the strip without damage or interruption.

8 Chemical Coaters

Reverse roll coating ensures precise coverage of numerous chemicals including RoHS compliant options.

4 Galvanized and Galvalume® Pots

Steel strip is dipped into the zinc or zinc-aluminium alloy pot which can be interchanged in a short period of time according to our schedule.

3 Continuous Annealing Furnace

After passing the degreaser, the strip is rapidly heated in the NOF (non-oxygen furnace) and then annealed to specification in the RTS (radiant tube section) all in a reducing gas atmosphere.

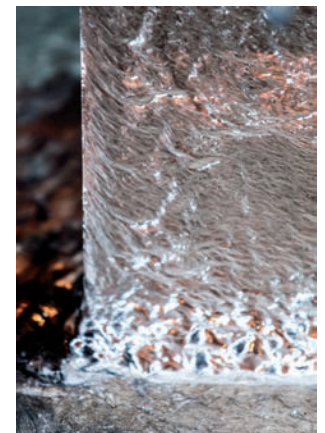
1 Pay Off Reel

Coils are continuously fed into the line after any off gauge sheet is cropped off. A gamma-ray thickness gauge provides the capability to measure and datalog the entire coil's sheet thickness.



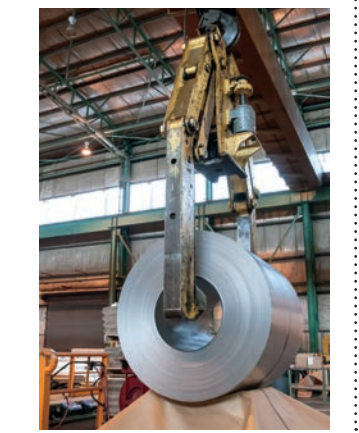
5 Air Wiping

Coating weight is precisely controlled by a closed loop computerized control system.



12 Remote Controlled Cranes

Five remote-controlled cranes hoist the coils with parallel linkage coil lifters and load them in one of our six truck bays.

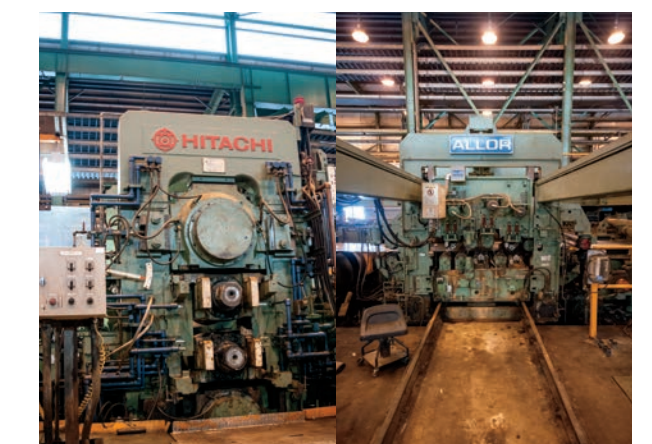


9 Inspection Table

Twenty-four hour visual inspection of all coated products ensures consistent high quality.

7 Skinpass Mill & Tension Leveler

The 4-High Skinpass Mill provides excellent sheet surface smoothness, texture, and mechanical properties. The Tension Leveler provides optimal sheet flatness. These units are linked and operated by a closed-loop computer control.



11 Warehouse

Product coils are packed in our logo paper and then stored in our climate-controlled warehouse which is equipped with a KLP® Rollblock System.



2 Degreaser

Raw material is thoroughly cleaned of contaminants before annealing. This ensures optimal coating adhesion.



WHEELING-NIPPON STEEL Facilities

Aluminizing and Galvanizing Line The AGL is a fully computerized multi-product hot dip coating line. The AGL produces Minimum Spangle Galvanized, Galvannealed, Aluminized Type 1 & Type 2, and ZAM®. Production capacity is about 400,000 tons per year.

Continuous Galvanizing Line The CGL is designed to produce light-gauge Galvanized and Galvalume® products. Production capacity is about 300,000 tons per year.

GALVANNEALED

ZINC-IRON ALLOY COATED SHEET

When paintability is of primary concern, WHEELING-NIPPON STEEL's galvanized sheet may be the perfect fit. Our galvanized material provides a consistent alloy surface ideal for painting in addition to excellent formability, weldability, galvanic protection, and flatness.

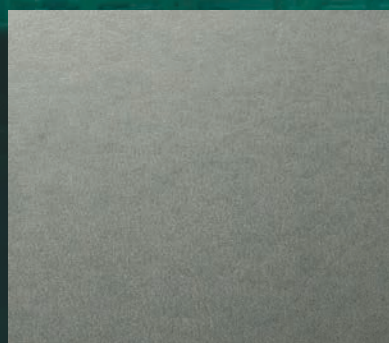
Suitable end uses for galvanized include automotive, highway signage, electrical equipment, doors, door frames, garage doors, molding, trailers, cabinets, etc.

THE RUN DOWN

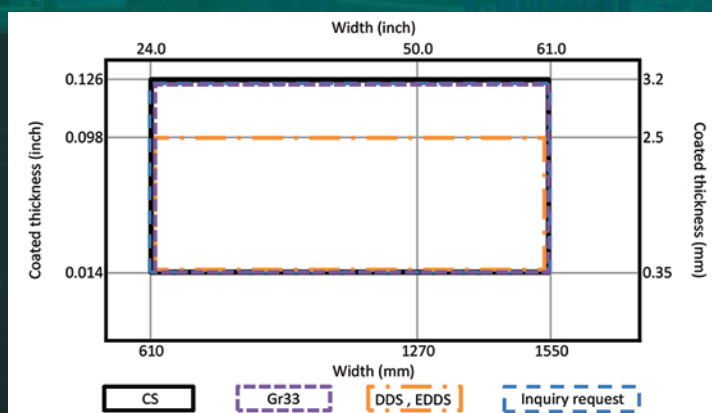
- MATERIAL THICKNESS** ▶ 0.014" through 0.130"
- MATERIAL WIDTH** ▶ 24" through 61"
- ASTM SPECIFICATION** ▶ ASTM A653
- STEEL GRADES**
 - ▶ Commercial Steel
 - ▶ Extra Deep Drawing Steel
 - ▶ HSLA Steel Grades
 - ▶ Deep Drawing Steel
 - ▶ Forming Steel
 - ▶ Structural Steel Grades
- COATING WEIGHT**
 - ▶ A25
 - ▶ A40
 - ▶ A60

(UL Coating Weights Available, Please Inquire)
- COIL WEIGHT** ▶ 10,000 lbs. maximum through 55,000 lbs. maximum
- COIL ID** ▶ 20" and 24"
- AFTER TREATMENT (UPON REQUEST)**
 - ▶ Chemical Treatment *(RoHS Compliant Available)*
 - ▶ Oiling
 - ▶ Acrylic *(RoHS Compliant Available, Please Inquire)*
 - ▶ Stenciling

SIZE CHART



ACTUAL MATERIAL



ALUMINIZED

ALUMINUM COATED SHEET TYPE 1 AND TYPE 2

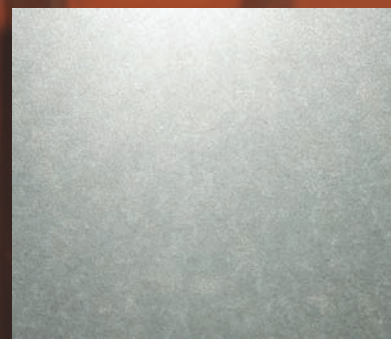
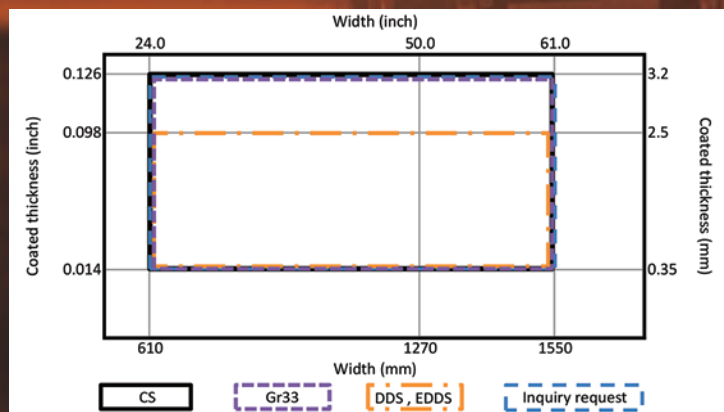
WHEELING-NIPPON STEEL's aluminized sheet is recommended for applications requiring severe heat and corrosion resistance. This product also has outstanding flatness and drawability properties.

Example applications include heat exchangers, commercial roof top HVAC units, automotive mufflers, heat shields, ovens, water heaters, baking pans, pipe wrap, culvert, etc.

THE RUN DOWN

- MATERIAL THICKNESS** ▶ 0.014" through 0.130"
- MATERIAL WIDTH** ▶ 24" through 61"
- ASTM SPECIFICATION** ▶ ASTM A463
- STEEL GRADES**
 - ▶ Commercial Steel
 - ▶ Extra Deep Drawing Steel
 - ▶ HSLA Steel Grades
 - ▶ Deep Drawing Steel
 - ▶ Forming Steel
- COATING WEIGHT** ▶ T1-13 ▶ T1-25 ▶ T1-40
(Type 2 and UL Coating Weights Available, Please Inquire)
- COIL WEIGHT** ▶ 10,000 lbs. maximum through 55,000 lbs. maximum
- COIL ID** ▶ 20" and 24"
- AFTER TREATMENT (UPON REQUEST)**
 - ▶ Chemical Treatment *(RoHS Compliant Available)*
 - ▶ Oiling
 - ▶ Acrylic *(RoHS Compliant, Please Inquire)*
 - ▶ Stenciling

SIZE CHART



ACTUAL MATERIAL



ZINC-ALUMINUM-MAGNESIUM ALLOY COATED SHEET

ZAM® is a highly corrosion-resistant hot-dip Zinc-Aluminum-Magnesium alloy coated steel sheet, and WHEELING-NIPPON STEEL is the first company in the United States to produce a zinc-aluminum-magnesium coated product. This amazing product lasts longer in the most severe environments, provides built in cut edge rust protection, and promotes cost savings through less maintenance. ZAM® serves as a self healing, ecologically friendly, alternative to post dip galvanizing.

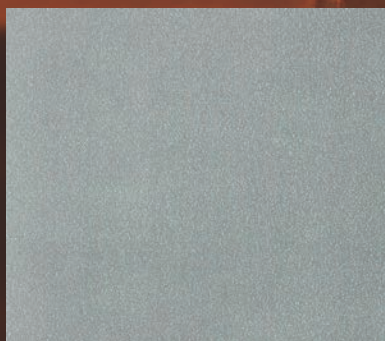
Suitable applications for ZAM® include architectural building panels, perforated panels, metal facades, roofing, agricultural applications (animal confinement), green house structures, industrial HVAC, solar racking systems, school bus plating, swimming pool, coastal environments, cable trays, steel decking, highway and rail safety equipment, automotive, etc.

THE RUN DOWN

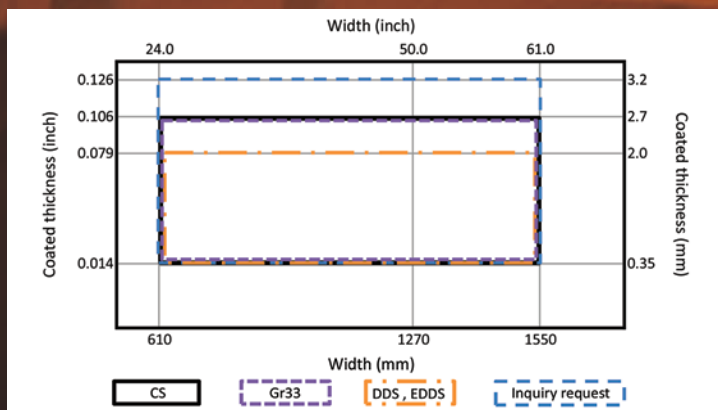
- MATERIAL THICKNESS** ▶ 0.014" through 0.130"
- MATERIAL WIDTH** ▶ 24" through 61"
- ASTM SPECIFICATION** ▶ ASTM A1046
- STEEL GRADES**
 - ▶ Commercial Steel
 - ▶ Extra Deep Drawing Steel
 - ▶ HSLA Steel Grades
 - ▶ Deep Drawing Steel
 - ▶ Forming Steel
 - ▶ Structural Steel Grades
- COATING WEIGHT**
 - ▶ ZM30
 - ▶ ZM40
 - ▶ ZM50
 - ▶ ZM60
 - ▶ ZM70
 - ▶ ZM75
 - ▶ ZM90
 - ▶ ZM100
 - ▶ ZM115

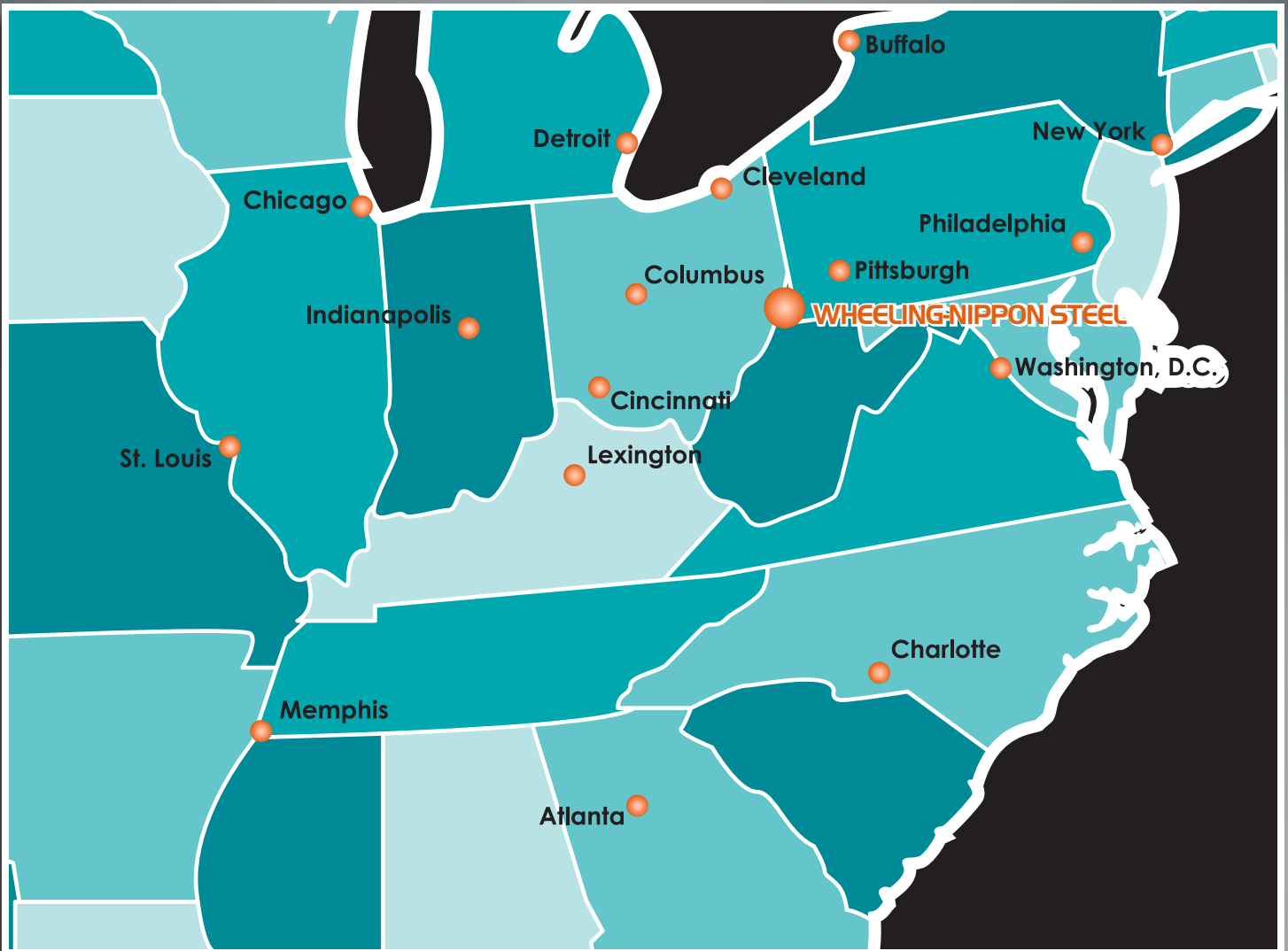
(Other Coating Weights Available, Please Inquire)
- COIL WEIGHT** ▶ 10,000 lbs. maximum through 55,000 lbs. maximum
- COIL ID** ▶ 20" and 24"
- AFTER TREATMENT (UPON REQUEST)**
 - ▶ Chemical Treatment (RoHS Compliant Available)
 - ▶ Oiling
 - ▶ Acrylic (RoHS Compliant, Please Inquire)
 - ▶ Stenciling

SIZE CHART



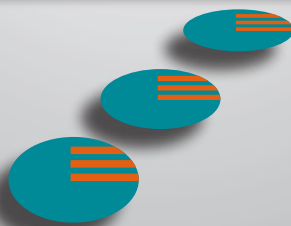
ACTUAL MATERIAL





WHEELING-NIPPON STEEL is a certified ISO-9001:2008 company assuring continuous improvement, structured operating guidelines, superior quality control, and the highest possible level of customer service.

WHEELING-NIPPON STEEL has also earned the "SHARP" certification from OSHA; this is an achievement of status that singles us out among our business peers as a model for worksite safety and health. **WHEELING-NIPPON STEEL's** goal has always been to produce the best possible quality product while protecting the safety, health, and environment of our employees & the surrounding communities.



WHEELING-NIPPON STEEL

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