

# ULTRA-HIGH STRENGTH GALVANIZED STRUCTURAL STEEL

**SS GRADE 95**



**Buildings/Structures**

**Solar Farms**

**Primary or Secondary Structural Components**

Cleveland-Cliffs has developed lighter, thinner, stronger and more durable steels, enabling the design of more efficient and cost effective structures. One of these steels is **SS GRADE 95 (SS95)**, which is an ultra-high strength hot-dip galvanized structural steel with a guaranteed minimum yield strength of 95ksi. This product exceeds the strength of the current highest strength structural steel specifications available by over 18%, allowing significant opportunity for design optimization. Furthermore, this product has a typical total elongation of 5%, which allows for good cold-forming performance and durability.

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## Applications

Cold-formed steel profiles are important components of many steel buildings, such as structures and solar farms, and are commonly used as primary or secondary structural components. These profiles distribute surface loads to the building framework and foundations.

Cleveland-Cliffs' SS95 is a cost-effective solution for longer, stronger, lighter profiles vs. conventional lower strength structural steels.

SS95 offers good formability and multiple profiling options.

Potential applications include:

- Building framing, structural profiles (purlins, rails, sleeves, rafters, cleats, bracing and all related accessories)
- Solar framing
- Scaffolding and racking systems
- Trailer components

## Fabrication

SS95 can be bent or profiled using conventional brake press and roll-forming equipment and is easily weldable with conventional technologies. Higher elongations make this grade suitable for tighter bend radii not possible with full hard/lower elongation grades.

## Properties

### MECHANICAL PROPERTIES

Yield strength	Total elongation	
	Typical	Min
95ksi (655Mpa) min	5%	3%

### CHEMISTRY

C (max)	Mn (max)	P (max)	S (max)
0.20	1.35	0.04	0.04

## Product Availability

Gauge (nominal)	Maximum width	Galvanized coating weight
0.82 - 1.06 mm (0.032 - 0.041")	1422 mm (56")	G40 - G115
1.07 - 1.98 mm (0.042 - 0.078")	1524 mm (60")	

*Size capability may vary by specification and facility. Please inquire for more specific information.*

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## Benefits

- ✓ Lighter and stronger
  - Thickness reduction
  - Weight reduction with equivalent performance
  - New design opportunities (good formability)
  - Increase in load-bearing capacity
- ✓ Sustainable
  - Fully recyclable or reusable at the end of life
- ✓ Cost-effective
  - Cost savings through lightening
  - Increased payload or longer spans/fewer structural parts
- ✓ Durable
  - Galvanized coated for corrosion protection
  - Improved fatigue performance vs. full hard products

### About Cleveland-Cliffs Inc.

Cleveland-Cliffs is the largest flat-rolled steel producer in North America. Founded in 1847 as a mine operator, Cliffs also is the largest manufacturer of iron ore pellets in North America. The Company is vertically integrated from mined raw materials, direct reduced iron, and ferrous scrap to primary steelmaking and downstream finishing, stamping, tooling, and tubing. The Company serves a diverse range of markets due to its comprehensive offering of flat-rolled steel products and is the largest supplier of steel to the automotive industry in North America. The Company is headquartered in Cleveland, Ohio with mining, steel and downstream manufacturing operations located across the United States and in Canada. For more information, visit [www.clevelandcliffs.com](http://www.clevelandcliffs.com).



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