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 guaranteed minimum total elongation of 8%, which allows for good cold-forming performance and durability.
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.

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

**GUARANTEED MECHANICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Yield strength</th>
<th>Total elongation</th>
</tr>
</thead>
<tbody>
<tr>
<td>95ksi (655Mpa) min</td>
<td>8% minimum</td>
</tr>
</tbody>
</table>

**CHEMISTRY**

<table>
<thead>
<tr>
<th>C (max)</th>
<th>Mn (max)</th>
<th>P (max)</th>
<th>S (max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.20</td>
<td>1.35</td>
<td>0.04</td>
<td>0.04</td>
</tr>
</tbody>
</table>

Product Availability

<table>
<thead>
<tr>
<th>Gauge Width</th>
<th>Galvanized coating weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.046 - 0.065&quot; (1.17 - 1.65 mm)</td>
<td>G40-G115</td>
</tr>
<tr>
<td>Up to 59&quot; (1500 mm)</td>
<td></td>
</tr>
</tbody>
</table>

Size capability may vary by specification and facility. Please inquire for more specific information.
ULTRA-HIGH STRENGTH GALVANIZED STRUCTURAL STEEL

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, we are also the largest producer of iron ore pellets in North America. In 2020, we acquired two major steelmakers, AK Steel and ArcelorMittal USA, vertically integrating our legacy iron ore business with quality-focused steel production and emphasis on the automotive end market. Our fully integrated portfolio includes custom-made pellets and hot-briquetted iron (HBI); flat-rolled carbon steel, stainless, electrical, plate, tinplate and long steel products; as well as carbon and stainless steel tubing, hot and cold stamping and tooling. Headquartered in Cleveland, Ohio, we employ approximately 25,000 people across our mining, steel and downstream manufacturing operations in the United States and Canada.