### CRA GUIDE TO SELECTION OF STAINLESS STEELS

<table>
<thead>
<tr>
<th>Alloy Family</th>
<th>Alloy Type</th>
<th>UNS Number</th>
<th>Chemical Composition</th>
<th>Tensile Strength</th>
<th>Elong. (%)</th>
<th>CVN Impact (ft-lbs)</th>
<th>Hardness</th>
<th>NACE MR0175/ISO 15156</th>
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</thead>
<tbody>
<tr>
<td>Martensitic Stainless Steel</td>
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<td>13 Chrome</td>
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<tr>
<td>13 CT 13Cr, L80</td>
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<td>S42000</td>
<td>0.15 to 0.22</td>
<td>12.0 to 14.0</td>
<td>0.5</td>
<td>—</td>
<td>0.25</td>
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<td>0.03</td>
<td>11.0 to 14.0</td>
<td>4.0 to 6.0</td>
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<td>0.1 to 0.2</td>
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<td>N/A</td>
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<td>12.0 to 14.0</td>
<td>3.5 to 5.0</td>
<td>0.8</td>
<td>0.1 to 0.5</td>
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<td>Super 13 Chrome</td>
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<td>5CRA Group 1</td>
<td>13Cr, 5-2 PSL 1 &amp; 2</td>
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<td>0.03</td>
<td>11.5 to 13.5</td>
<td>5.5 to 7.5</td>
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<td>1.0 to 2.0</td>
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<td>15 Chrome</td>
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<td>S42500</td>
<td>0.08 to 0.2</td>
<td>14.0 to 16.0</td>
<td>1.0 to 2.0</td>
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<td>0.1 to 0.7</td>
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<td>17 Cr</td>
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<td>2.0 to 3.0</td>
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**Notes:**
- **C:** Carbon, **CR:** Chromium, **Ni:** Nickel, **Mo:** Molybdenum, **Cu:** Copper, **Ti:** Titanium, **V:** Vanadium, **W:** Tungsten, **N:** Nitrogen.
- **PREN:** Percentage Equivalent to Chromium and Nickel.
- **0.2% Yield Str. (ksi):** Tensile Strength (ksi).
- **Tensile Str. (ksi):** Tensile Strength (ksi).
- **Elong. (%):** Elongation (%).
- **CVN Impact (ft-lbs):** CVN Impact (ft-lbs).
- **Hardness:** Hardness.
- **NACE MR0175/ISO 15156:** Sour Service Limits.

**Specifications:**
- Trans. at 14°F (HRC)
- H₂S Limits:
  - min. = minimum, max. = maximum, max. = maximum
- Long. at room temperature
- Function of specimen size
- Function of wall thickness
- Function of wall thickness
- Function of wall thickness
- Function of specimen size and strength
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**Additional Information:**
- 5CT 13Cr L80
- 316L 18-8
- N/A
- 13 Chrome
- Super 13 Chrome
- 15Cr
- Duplex Stainless Steel
- 17Cr
- Alloy Family
- Alloy Type
- UNS Category
- Trade Names
- UNS Number
- Chemical Composition
- Tensile Strength
- Elong. (%)
- CVN Impact (ft-lbs)
- Hardness
- NACE MR0175/ISO 15156

**Contact Information:**
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