

# HM Wire International, Inc.

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## Alloy 412 - Stainless Steel AL 412™

**Description:** AL 412 alloy is a low carbon, nickel containing, dual phase 12% CR Stainless Steel. AL 412 has superior toughness when compared to fully ferritic stainless steel alloys.

**Applications:** Rail Cars, Coal Handling equipment, sugar processing equipment, mining equipment, storage bins and hoppers and bus frames.

<b>Nominal Composition:</b>	<b>C</b>	<b>Mn</b>	<b>Si</b>	<b>P</b>	<b>S</b>	<b>Cr</b>	<b>Ni</b>
	0.02	0.90	0.70	0.040 Max	0.030 Max	11.75	0.40
	<b>N</b>	<b>Fe</b>					
	0.030 Max	Balance					

### **Mechanical Properties** - typical room temperature

	<b>English Units</b>	<b>Metric Units</b>
<b>Density</b>	0.280 lb/cu in @ 68°F	7.75 gm/cu cm
<b>0.2% Offset Yield Strength</b>	60 ksi	414 MPa
<b>Ultimate Tensile Strength</b>	82 ksi	565 MPa
<b>Elongation in 2 inches</b>	24%	24%
<b>Rockwell Hardness</b>	87 Rb	87 Rb

\*To be used as a guideline only.

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