

Table 3.4.2 C: Wheel Weights – Steel

Technical/ Performance Parameter	Measure/Metric	Source of Information
<i>Component/End-product</i>		
<p><u>Key</u> physical characteristics</p>	<p>Density: The density of steel is approximately 7.87 g/cm³ vs. 11.34 g/cm³ for lead, which means that, for a given weight size (mass), a steel weight will be 44% larger volume than a lead weight.</p> <p>Melting Point: At 2732° F, the melting point of steel is significantly higher than the 621° F melting point of lead and well above the maximum operating temperatures required for wheel weights.</p> <p>Corrosion resistance: Steel weights are subject to rusting and therefore must be coated for all wheel weight applications to prevent corrosion.</p> <p>Hardness:</p> <p style="padding-left: 40px;">Carbon steel, Brinell: 170 Lead, Brinell: 4.2 Lead, Vickers: 5</p> <p>Malleability: Steel has limited malleability and therefore forming of the weights during installation to match the wheel diameter is not possible.</p>	<p>MatWeb, 2006</p>