

Table 3.4.2 D: Wheel Weights – Tin

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 tin is 7.34 g/cm³ vs. 11.34 g/cm³ for lead, which means that, for a given weight size (mass), a tin weight will be 54% larger volume than a lead weight. (MatWeb)</p> <p>Melting Point: At 450° F, the melting point of tin is lower than the 622° F melting point of lead but it is above the maximum operating temperatures required for wheel weights. (MatWeb)</p> <p>Corrosion resistance: A manufacturer of tin adhesive wheel weights states that no corrosion protection is required for tin wheel weights and that they will retain a good surface appearance. (Trax)</p> <p>Hardness:</p> <p style="padding-left: 40px;">100% tin, Brinell: 3.9 tin alloy, ASTM B 23, Brinell: 17 Lead, Brinell: 4.2 Lead, Vickers: 5</p> <p>(MatWeb)</p> <p>Malleability: The malleability of tin is similar to lead. (Sander)</p>	<p>MatWeb, 2006</p> <p>Trax, 2006</p> <p>Sander, 2000</p>