

**Table 3.4.3 E: Fishing Sinkers – Tin**

<b>Technical/ Performance Parameter</b>	<b>Measure/Metric</b>	<b>Source of Information</b>
<i>Component/End-product</i>		
<p><u>Key physical characteristics</u></p>	<p>Density: The density of tin is 7.34 g/cm<sup>3</sup> vs. 11.34 g/cm<sup>3</sup> 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. (MatWeb)</p> <p>Corrosion resistance: Tin is corrosion resistant and because of this property it is commonly used to coat steel to produce tinfoil, which is used for food packaging applications.</p> <p>Malleability: The malleability of tin is similar to lead. (Sander)</p> <p>Brittleness: In a review of lead-free sinkers, one angler stated that the brittleness of tin can result in split-shot splitting apart, particularly if the tin split-shot is reused. (Ellis)</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>MatWeb, 2006</p> <p>Ellis, 2006</p> <p>Sander, 2000</p>