

Table 3.4.2 D: Wheel Weights – Zinc

Technical/ Performance Parameter	Measure/Metric	Source of Information
<i>Component/End-product</i>		
<p><u>Key physical characteristics</u></p>	<p>Density: The density of zinc is 7.10 g/cm³ vs. 11.34 g/cm³ for lead, which means that, for a given weight size (mass), a zinc weight will be 60% larger volume than a lead weight. (MatWeb)</p> <p>The density of zinc alloy ZAMAC ZL5 is 6.76 g/cm³. (Umicore)</p> <p>Melting Point: At 787° F, the melting point of zinc is significantly higher than the 622° F melting point of lead and well above the maximum operating temperatures for wheel weights. (MatWeb)</p> <p>Corrosion resistance: While zinc has good corrosion resistance, zinc wheel weights must be coated to prevent galvanic corrosion when mounted on aluminum wheels. (Umicore)</p> <p>Malleability: Zinc is malleable but is brittle at standard temperatures.</p> <p>Hardness:</p> <p style="padding-left: 40px;">Zinc, Vickers: 30 ZAMAC ZL5, Brinell: 91 (Umicore) ZAMAC ZL5, Vickers: 102 (Umicore) Lead, Brinell: 4.2 Lead, Vickers: 5 (MatWeb)</p>	<p>MatWeb, 2006.</p> <p>Umicore, 2006.</p>