

**NOMINAL SPECIFICATION DATA SHEET FOR  
HMP (5S) ALLOY**

<b>Alloy specification</b>	<b>EN29453 S-Pb93Sn5Ag2</b>	<b>J-STD-006 Sn05Pb94Ag1</b>	<b>BS219 Grade 5S</b>
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<b>Solidus</b>	<b>296°C</b>	<b>296°C</b>	<b>296°C</b>
<b>Liquidus</b>	<b>301°C</b>	<b>301°C</b>	<b>301°C</b>

**Alloy Composition**

<b>Tin</b>	<b>4.8-5.2</b>	<b>4.8-5.2</b>	<b>4.75-5.25</b>
<b>Lead</b>	<b>Remainder</b>	<b>Remainder</b>	<b>Remainder</b>
<b>Arsenic (max)</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>
<b>Bismuth (max)</b>	<b>0.1</b>	<b>0.1</b>	<b>0.01</b>
<b>Iron (max)</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>
<b>Copper (max)</b>	<b>0.05</b>	<b>0.08</b>	<b>0.05</b>
<b>Aluminium (max)</b>	<b>0.001</b>	<b>0.005</b>	<b>0.001</b>
<b>Cadmium (max)</b>	<b>0.002</b>	<b>0.002</b>	<b>0.005</b>
<b>Zinc (max)</b>	<b>0.001</b>	<b>0.003</b>	<b>0.003</b>
<b>Antimony (max)</b>	<b>0.10</b>	<b>0.20</b>	<b>0.10</b>
<b>Gold (max)</b>	<b>0.005</b>	<b>0.005</b>	<b>0.005</b>
<b>Nickel (max)</b>	<b>0.005</b>	<b>0.005</b>	<b>0.005</b>
<b>Silver</b>	<b>1.4-1.6</b>	<b>1.3-1.7</b>	<b>1.4-1.6</b>

**BS219 is an obsolete specification. Our alloys are now manufactured to EN29453.**