

TECHNICAL SPECIFICATION

Alloy designation according to ISO 9453:2014	Bi57Sn42Ag1
Product form:	Solid wires

1. General characteristics

The 57% bismuth, 42% tin, 1% silver solder is made from virgin raw materials in their first melt. It has a low melting point, making it useful for assembling equipment and components that are susceptible to damage when exposed to higher temperatures when using conventional solders. It has very good wettability and fast flow. The alloy complies with the ROHS regulation (2002/95/EC).

2. Alloy composition

2.1 Tin content:	41,5-42,5%
2.2 Bismuth content:	reszta
2.3 Silver content	0,8-1,2%

Maximum impurities according to EN ISO 9453:2014 :

Fe	Al	Cu	Ag	As	Pb	Zn	Sb	Bi	Cd	Au	In	Sn
max 0.02	max 0.001	Max 0,05	0,8-1,2	max 0.03	max 0.07*	max 0.001	max 0.10	Reszta	max 0.002	max 0.05	max 0.10	41,5 – 42,5

* - Realistic lead content in the alloy not higher than 0.06% (600 ppm)

3. Physical properties

Melting point	solidus 138 / liquidus 140 °C
Specific gravity	8,53 g/cm ³
Electrical conductivity	4,6 – 5 % IACS
Thermal conductivity	0,35 W/cm °C
Hardness	24 HB
Recommended soldering temperature range	Above 170 °C

4. Other information

Wire diameter range	0,50mm; 0,70mm; 1,00mm; 1,25mm
Shelf life	Not applicable
Signs/ Descriptions	Wire spools and cartons marked with alloy symbol, diameter, dimensions, weight and batch number
Storage	store at room temperature, in a dry place.