

OK Autrod CuSi Laser

A solid copper wire intended for laser brazing of zinc coated steel sheets. OK Autrod CuSi Laser is especially developed for laser brazing of body-in-white applications within the automotive industry. Compared to a standard CuSi3Mn1 copper wire OK Autrod CuSi Laser provides a more stable brazing process as well as a superior surface finish.

Specifications

Classifications	SFA/AWS A5.7 : ER CuSi-A EN ISO 24373 : Cu 6560 (CuSi3Mn1)
------------------------	---

Alloy Type	S Cu 6560 (CuSi3Mn1)
Shielding Gas	C1 (EN ISO 14175)

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
As Welded	130 MPa (19 ksi)	350 MPa (51 ksi)	40 %

Typical Wire Composition %

Mn	Si	Cu	Sn	Zn	Fe
0.9	2.85	96	0	0.05	0.05

Deposition Data

Diameter	Current	Voltage	Wire Feed Speed
1.0 mm (.040 in.)	80-210 A	12.5-18 V	4-12 m/min (157.5-472 in./min)
1.2 mm (.045 in.)	150-320 A	16-29 V	5-11.5 m/min (197-453 in./min)

Recommended Welding Parameters

Current	Wire Diameter	Voltage	Wire Feed Speed
130-150 A	0.8 mm (0.030 in.)	20-24 V	11.7-12.7 mm/min (461-500 in./min)
145-185 A	0.9 mm (0.035 in.)	22-26 V	10.2-11.2 mm/min (402-441 in./min)
155-210 A	1.0 mm (0.040 in.)	24-28 V	9.1-10.1 mm/min (358-398 in./min)
195-215 A	1.2 mm (0.047 in.)	25-29 V	7.1-7.9 mm/min (280-311 in./min)
260-280 A	1.6 mm (1/16 in.)	26-30 V	3.8-5.3 mm/min (150-209 in./min)