

Al 99,0 (ER 1100)

CATEGORY GMAW-GTAW Solid wires

TYPE 99,0 % pure aluminum filler metal for Mig welding

APPLICATIONS Aluminum wire for welding mostly pure aluminum (maximum 0,95% of alloyed elements). Applications in chemistry, electronics, construction and food industries.

PROPERTIES This 99,0% pure aluminum filler metal offers excellent weldability and is the strongest in the 1000 series of the pure aluminum grades. Heavy parts and thicker plates should be preheated (150°C), prior to welding. At the same time, it keeps the benefits of being relatively lightly alloyed (compared to other series), such as high electrical conductivity, thermal conductivity, corrosion resistance, and workability. It can be strengthened by cold working, but not by heat treatment.

CLASSIFICATION AWS A 5.10: ER 1100
EN ISO 18273: S AL 1100 / AL 99,0

SUITABLE FOR Al99,0 Al.99,5 Al.99,7 E-Al., 99,5, 3.0205, 3.0255, 3.0275, 3.0257, EN AW 1200, EN AW 1050A, EN AW 1070A, EN AW 1350, 1060, 1070, 1080, and 3003.

APPROVALS CE approved

WELDING POSITIONS:



ALL WELD DEPOSIT (WEIGHT %)

Al	Mn	Cu	Fe	Si	V	Rest	Fe+Si
99.0-99,95	<0.05	0.05-0.20	<0.95	<0.95	<0.1	<0.15	<0.95

MECHANICAL PROPERTIES (TYPICAL)

Heat Treatment	R _{p0,2} (N/mm ²)	R _m (N/mm ²)	A ₅ (%)	Impact Energy (J) ISO-V			Hardness HRc / HV
				-20°C	-40°C	-60°C	
AW	52	93	>30				

AW: as welded

WELDING PARAMETERS / PACKING

Welding Parameters			Packing		
D (mm)	Voltage (V)	Current (A)	spool type	kg / spool / drum	kg / pallet
1.0	15-26	90-210	D-100 / D-200 / K-300 / Drum	0.5 / 2.0 / 7.0 / 80	504
1.2	20-29	140-260	D-100 / D-200 / K-300 / Drum	0.5 / 2.0 / 7.0 / 80	504
1.6	25-30	190-350	D-200 / K-300 / Drum	2.0 / 7.0 / 80	504

REDRYING TEMPERATURE not required

GAS ACC. EN ISO 14175: I1, Argon+Helium (70-30)