CEWELD®

AlSi 12

CATEGORY	GMAW-GTAW Solid wires
TYPE	Aluminium silicon alloy for welding cast aluminum parts, also suitable as brazing alloy with suitable flux.
APPLICATIONS	Aluminium alloy for welding and brazing. This material is generally used for brazing aluminium sheets, for extrusions and castings. (After anodizing the welding will be of a different colour)
PROPERTIES	AlSi12 was originally developed as a brazing alloy to take advantage of its low melting point and narrow freezing range. In addition, it has a higher silicon content than AlSi5, which provides increased fluidity and reduced shrinkage. Hot cracking is significantly reduced when using AlSi12 as a filler alloy. The alloy may be used in applications at sustained elevated temperatures. Non-heat treatable. Thicker sections should be preheated (150°C) prior to welding.
CLASSIFICATION	AWS A 5.10: ER 4047 EN ISO 18273: S Al4047A (AlSi12(A)) DIN: W.Nr. 3.2585 DIN 1732: SG AlSi12
SUITABLE FOR	G-AlSi10Mg, G-AlSi11 G-AlSi12 (Cu), G-AlSi7Mg, G-AlSi6Cu4 , G-AlSi9Mg, G-AlSi9Cu3, AlMgSi0.8, AlMgSi1, 4145, 3.2581, 3.2583, 3.2381, 3.2383, 3.2373, 3.2163, 3.2371, 3.2151, B 413.0, 361.0, 359.0, 356.0, 319.0
APPROVALS	CE approved
WELDING POSITIONS:	

WELD DEPOSIT WEIGHT (TYPICAL) %

Al	Mn	Si	Cu	Zn	Fe	Mg	Ti	Be	others
rem	<0.15	11-13	<0.30	<0.20	<0.6	<0.1	<0.15	<0.0006	<0.15

TYPICAL MECHANICAL PROPERTIES

Heat Treatment	$R_{P0,2}$ (N/mm²)	Rm (N/mm²)	A5 (%)	Impact Energy (J) ISO-V -20°C	-40°C	-60°C	T (°C)
as welded	>75	>170	>6				573-585

WELDING PARAMETERS / PACKING

Welding Parameters			Packing		
D (mm)	Voltage (V)	Current (A) DC+	spooling type	weight kg	pallet
0.8	13-22	50-160	D-100 / D-200	0.5 / 2.0	
1.0	13-26	70-180	D-100 / D-200 / K-300 / Drum	0.5 / 2.0 / 7.0 / 80	
1.2	20-29	140-260	D-100 / D-200 / K-300 / Drum	0.5 / 2.0 / 7.0 / 80	
1.6	25-30	190-350	K-300 / Drum	7.0 / 80	

REDRYING TEMPERATURE	not required
GAS ACC. EN ISO 14175:	I1, I3