CEWELD®

AlMg 4.5Mn Tig

CATEGORY	GMAW-GTAW Solid wires
TYPE	Tig aluminium welding wire with high corrosion resistance
APPLICATIONS	Filler metal for Magnesium and Manganese alloyed Aluminium with a maximum Magnesium content of 5%. This alloy shows very good mechanical properties that make it ideal for applications in shipyards, in car and railway industry and constructions of reservoirs and tanks.
PROPERTIES	Excellent weldabillity and good mechanical strength combined with good corrosion resistance against seawater are typical for this alloy. The weld deposit is free from porosity due to the special shaving process and cleaning method during production. AlMg4,5Mn is one of the highest grades within the range of aluminum alloys and covers a huge range of alloys. Thicker sections should be preheated (150°C) prior to welding.
CLASSIFICATION	AWS A 5.10: ER 5183 F-No. 22 EN ISO 18273:S AL5183 / AlMg4,5Mn0,7(A) W22 DIN: W.Nr. 3.3548 DIN 1732: SG-AlMg4.5Mn
SUITABLE FOR	Aluminium alloys: AlMg4,5Mn, AlMg5, AlMg2Mn0,8, AlZnMg1, AlZnMgCu0,5, AlMgSi0,5, AlMgSi1, G-AlMg10, G-AlMg5, G-AlMg3Si, G-AlMg5Si, 3.3545, 3.3547, 3.3535, 3.3555, 3.3206, 3.3210, 3.2315, 3.3211, 3.4335, EN AW 5086, EN AW 5083, EN AW 5019, EN AW 5019, EN AW 6060, EN AW 6005A, EN AW 6082, EN AW 6061, EN AW 7020, EN AC 51300, EN AC 51400,
APPROVALS	CE approved
WELDING POSITIONS:	

CHEMICAL COMPOSITION [%]

Al	Mn	Si	Cr	Be	Ti	Fe	Cu	Mg	Zn	other
rest	0.5-1.0	<0.4	0.05-0.25	0.0008	0.15	<0.4	<0.1	4.3-5.2	<0.25	<0.15

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)
AW	125-145	275-325	>16	30			565-638

AW: as welded

WELDING PARAMETERS / PACKING

Welding Parameters		Packing (kg)	
D (mm)	Current (A) AC	single	master
1.6 x 1000	25-50	5	20
2.0 x 1000	40-75	5	20
2.4 x 1000	90-130	5	20
3.2 x 1000	160-240	5	20

REDRYING TEMPERATURE	Not required
GAS ACC. EN ISO 14175:	I1