

AlMg 4.5Mn

CATEGORY GMAW-GTAW Solid wires

TYPE Mig 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 weldability 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 weight range of alloys. Thicker sections should be preheated (150°C) prior to welding. Qualified by Lloyds for manual and (semi)automatic welding.

CLASSIFICATION

AWS	A 5.10: ER 5183
EN ISO	18273:S AL5183 (AlMg4,5Mn0,7(A))
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 LR, CE approved

WELDING POSITIONS:



CHEMICAL COMPOSITION [%]

Al	Mn	Si	Cr	Be	Ti	Fe	Cu	Mg	Zn	other
rest	0.5-1.0	<0.2	0.05-0.25	<0.0005	0.15	<0.4	<0.1	4.3-5.2	<0.25	<0.15

MECHANICAL PROPERTIES

Heat Treatment	R _{p0,2} (N/mm ²)	R _m (N/mm ²)	A ₅ (%)	Impact Energy (J) ISO-V			T (°C)
				+20°C	-40°C	-60°C	
AW	125-145	275-325	>16	30			565-638

AW: as welded

WELDING PARAMETERS / PACKING

Welding Parameters			Packing		
D (mm)	Voltage (V)	Current (A)	spool type	kg / spool / Drum	kg / pallet
0.8	14-23	60-160	D-200 / KD-300 / Drum	2 / 7 / 80	400 / 504 / 320
1.0	15-26	90-210	D-200 / KD-300 / Drum	2 / 7 / 80	400 / 504 / 320
1.2	20-29	140-260	D-200 / KD-300 / Drum	2 / 7 / 80	400 / 504 / 320
1.6	25-30	190-350	KD-300 / Drum	7 / 80	504 / 320

REDRYING TEMPERATURE Not required

GAS ACC. EN ISO 14175: 1L