

## MT-AIMg 4,5 Mn

## 3.3548

Aluminium-magnesium-alloyed MIG/TIG wire for welding aluminium alloys.

### Standard designation

Material No.	3.3548
AWS/ASME SFA-5.10	ER 5183
EN ISO 18273	S Al 5183 (AlMg4,5Mn0,7(A))

### Main base metals

Aluminium-magnesium alloys  
e.g. AlMg 3 (3.3535), AlMg 4,5 Mn (3.3547), AlMg 5 (3.3555); conditionally also for age-hardenable alloys like AlCuMg 1 (3.1325), AlMgSi 1 (3.2315), AlZn 4,5 Mg 1 (3.4335) AlZnMgCu 1,5 (3.4365)

### Physical properties (typical values)

El. conductivity at 20°C [S · m/mm <sup>2</sup> ]	Thermal conductivity at 20°C [W/(m · K)]	Linear thermal expansion coefficient (20 - 100°C) [1/K]
16 - 19	110 - 120	23,7 · 10 <sup>-6</sup>

### Mechanical properties of all-weld-metal (typical values)

Welding process Gas shield			TIG I1	MIG I1
Thermal treatment			untreated	untreated
Test temperature		[°C]	+20°C	+20°C
0.2%-yield strength	R <sub>p0,2</sub>	MPa	140	140
Tensile strength	R <sub>m</sub>	MPa	280	280
Elongation	A <sub>5</sub>	[%]	20	20

### Average chemical composition of all-weld-metal (%)

Al	Mg	Mn	Cr	Ti
Basic	4,30-5,20	0,50-1,0	0,05-0,25	0,15

### Application notes

The seam area has to be clean and free of oxide film. Preheat larger work pieces to +150°C.  
Weld seams on age-hardenable alloys should not be located in areas subject to high mechanical stress.

### Gas types applicable TIG Gas types applicable MIG

I1  
I1, Monomix (I1 with 0,015 % N2)

### Approvals

TÜV, DB, CE

### TIG rod diameters available, unit weights

Diameter [mm]	Length [mm]	kgs per box
1,60	1000	10,0
2,00	1000	10,0
2,40	1000	10,0
3,20	1000	10,0
4,00	1000	10,0
5,00	1000	10,0

### MIG welding wire

Diameter 0,8mm 1,0mm 1,2mm 1,6mm

### Welding positions MIG acc.to EN ISO 6947

PA, PB, PF

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PA, PB, PF

### Current/Polarity TIG

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### Current/Polarity MIG

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