

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

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 _{p0,2}	MPa	140	140
Tensile strength	R _m	MPa	280	280
Elongation	A ₅	[%]	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

Welding positions TIG acc.to EN ISO 6947

PA, PB, PF

Current/Polarity TIG

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Current/Polarity MIG

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