

MT-AIMg 5

3.3556

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

2

Standard designation

Material No.	3.3556
AWS/ASME SFA-5.10	ER 5356
EN ISO 18273	S Al 5356 (AIMg5Cr(A))

Main base metals

Aluminium-magnesium alloys
e.g. AIMg 1 (3.3315), AIMg 3 (3.3535), AIMg 5 (3.3555) sowie AIMgSi 1 (3.2315)

Physical properties (typical values)

El.conductivity at 20°C [S · m/mm ²]	Thermal conductivity at 20°C [W/(m · K)]	Linear thermal expansions coefficient (20-100°C) [1/K]
15-19	110-150	23,7 · 10 ⁻⁶

Mechanical properties of all – weld – metal (typical values)

Welding process Gas shield Thermal treatment Test temperature			TIG I1 untreated +20°C	MIG I1 untreated +20°C
		[°C]		
0.2%-yield strength	R _{p0,2}	MPa	110	110
Tensile strength	R _m	MPa	250	250
Elongation	A ₅	[%]	25	25

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

Al	Mg	Mn	Cr	Ti
Basic	4,50-5,50	0,05-0,20	0,05-0,20	0,06-0,20

Application notes

For larger work pieces and thicker sections than 15 mm preheat to +150 °C.

Gas types applicable TIG Gas types applicable MIG

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

Approvals

TÜV, DB, CE

TIG rod diameters, unit weights

Diameter [mm]	Length [mm]	Kg 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 Welding positions TIG acc.to EN ISO 6947

PA, PB, PF
PA, PB, PF

Current/Polarity TIG

~

Current/Polarity MIG

= +