MT-AlSi 5 3.2245

Aluminium-silicon-alloyed MIG/TIG wire welding AlSi-Alloys.

Standard designation

Material No.	3.2245
AWS/ASME SFA-5.10	ER 4043
EN ISO 18273	S Al 4043A (AlSi 5(A))

Main base metals

Aluminium-silicon alloys as well as joining dissimilar aluminium alloys to each other. Conditionally suitable for age-hardenable alloys like AlCuMg 1 (3.1325), AlMgSi 1 (3.2315), AlZn 4,5 Mg 1 (3.4335)

Physical properties

El. conductivity at 20°C [S · m/mm²]	**Thermal conductivity at 20°C** [W/(m · K)]	**Linear thermal expansion coefficient (20 - 100°C)** [1/K]
24 - 32	170	$22{,}1 \cdot 10^{-6}$

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

Welding process		**TIG**	**MIG**
Base metal		**AlSi 5**	**AlMgSi1**
Material thickness	**(mm)**	**6**	**6**
Gas shield		**I1**	**I1**
Thermal treatment		**untreated**	**untreated**
Test temperature	**[°C]**	**+20°C**	**+20°C**
0,2%-yield strength $R_{p0.2}$	MPa	100	100
Tensile strength R_m	MPa	160	160
Elongation g A_5	[%]	15	15

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

Al	Si
Basis	4,50-6,0

Gas types applicable TIG I1
Gas types applicable MIG I1

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, PC
Welding positions TIG acc.to EN ISO 6947 PA, PB, PF

Current/Polarity TIG **~**
Current/Polarity MIG **= +**

MT-AlSi 5 3.2245

Special-coated electrode for welding aluminium-silicon alloys.
Weld-metal: aluminium-silicon-alloy

Standard designation

Material No.	3.2245
AWS/ASME SFA-5.3	E 4043

Main base metals

Aluminium-silicon alloys as well as dissimilar aluminium alloys joined to each other. Conditionally also suitable for age-hardening alloys like e.g. AlCuMg 1 (3.1325), AlMgSi 1 (3.2315), AlZn 4,5 Mg 1 (3.4335)

Physical properties

El. conductivity at 20°C [S · m/mm²]	Thermal conductivity at 20°C [W/(m · K)]	Linear thermal expansion coefficient (20 - 100°C) [1/K]
24 - 32	170	$22{,}1 \cdot 10^{-6}$

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

Base metal Material thickness Thermal treatment Test temperature		(mm) [°C]	AlMgSi 1 6 untreated +20°C
0,2%-yield strength	$R_{p0,2}$	MPa	90
Tensile strength	R_m	MPa	160
Elongation	A_5	[%]	15

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

Al	Si
Basis	5

Redrying

1h at +120°C.

Diameters, welding current, unit weights

Diameter [mm]	Length [mm]	Current [A]	Average weight kg/1000 pcs.	Pieces per box	Kg per box
2,50	350	40 - 70	9,1	220	2,0
3,25	350	60 - 90	13,6	147	2,0
4,00	350	80 - 120	20,2	99	2,0

Welding positions acc.to EN ISO 6947 PA, PB, PC, PF

Current/Polarity **= +**