

Welding wire for MIG/MAG - T20

EN ISO 14341-A: G3Si1
DIN 8559 SG-2
AWS A5.18 ER70S-6

The manganese-silicon electrode wires, copper plated are intended for welding by MIG/MAG methods of low-carbon construction steel and fine-grained manganese construction steel. It allows using both high currents with spray arc and low currents at short-circuit metal transfer. The welding wire Tysweld T20 is offered only in precision winding and is widely used in engineering, automotive, petrochemical industries as well as at boiler and ship building and containers. This high quality welding wire has very well deserved good reputation which it owes to high quality feeding, arc stability and its unique characteristics. Caring for invariable quality every spool is subject to internal quality control.

Approvals:

TÜV 11185
DB 42.107.02
CE 13479
ABS 3YSA

Welded material:

P235 / S 235 - P420 / S420 etc.

Shielding gas (EN ISO 14175):

M20, M21, M3, C1

Welding current:

=(+)

Weld metal classification:

EN ISO 14341-A-G 42 4 C1/M21 G3Si1

Welding positions:



Product no

ø mm	1 kg	5 kg	15 kg	250 kg
0,6	T20.000	T20.001	-	-
0,8	T20.002	T20.003	T20.004	T20.005
1,0	-	T20.006	T20.007	T20.008
1,2	-	T20.009	T20.010	T20.012
1,6	-	-	T20.013	

Typical Chemical composition of the weld metal (%)

C	Si	Mn
0,1	0,85	1,4

Typical mechanical properties of the weld metal

Test method	Condition	Gas	R _m MPa	R _{eL} (R _{p0,2}) MPa	A ₅ /(A ₄) %	KV (J)/°C			
						+20	-20	-30	-29
EN	TZ0	M21	560	470	26	130	90	70	
EN	TZ1	M21	495	370	28	120	90		
EN	TZ2	M21	455	310	32	100	75		
EN	TZ0	C1	540	450	25	110	70		
AWS	TZ0	C1	>480	(>400)	(>22)				>27

TZ0 - after welding, TZ1 - after heat treatment - 620 °C/15h, TZ2 - after normalization - 920 °C/10,5h

Technological parameters

ø d	Welding current	Arc voltage	Deposition efficiency	Gas flow rate	Feed speed	Weld metal efficiency
(mm)	(A)	(V)	(%)	(l/min)	(m/min)	(kg/h)
0,6	30 - 100	15 - 20	95	12	5,5 - 13,0	0,7 - 1,7
0,8	60 - 200	18 - 24	95	14	3,2 - 13,0	0,8 - 3,0
1,0	80 - 300	18 - 32	96	16	2,7 - 15,0	1,0 - 5,6
1,2	120 - 380	18 - 34	97	18	2,5 - 15,0	1,3 - 8,0
1,6	225 - 550	28 - 38	98	20	2,3 - 12,0	2,1 - 11,4