6.2 Wire electrodes for gas shielded arc welding of cast iron, Cu- and Al-base-alloys as well as for special applications

6.2.1 Solid wires for gas shielded arc welding of cast iron, Cu- and Al-base-alloys as well as for special applications

Designation	Standard	Weld Metal Analysis [Wt.%]									Properties*					
capilla®		C	Si	Mn	Ni	Fe	Cu	Al	Mg	Others	$R_{o0,2}$ [MPa]	R_m [MPa]	L=5d [%]	KV (ISO-V) [J]	Hardness [HB]	SG
45 MIG	EN ISO 1071: S C NiFE 1 M	0,1	0,2	0,8	54	Bal.	-	-	-	-	-	480	16	-	200	M12
NiTi 4 MIG	EN ISO 14172: S Ni2061 (NiTi4) 2.4155	0,03	0,4	0,5	Bal.	-	-	-	-	Ti = 2,8	250	460	30	120	-	I1
NiCu30Mn MIG	EN ISO 18274: S Ni 4060 (NiCu30Mn3Ti) 2.4377	0,2	0,3	3	Bal.	1	29	-	-	-	330	490	36	-	-	I1
47 MIG	EN ISO 24373: S Cu6100 (CuAl7) 2.0921	-	-	0,3	0,5	-	Bal.	8	-	-	185	430	30	-	-	I1
47 N MIG	EN ISO 24373: S Cu6338 (CuMn13Al8Fe3Ni2) 2.1367	-	<0,1	13	1,5	1,5	Bal.	7			400	650	10	-	290	I1
47 Ni MIG	EN ISO 24373: S Cu 6327 (CuAl8Ni2Fe2Mn2) 2.0922	-	≤0,1	2,2	2,2	2,3	Bal.	8	-	-	290	550	30	-	140	I1

*** Min. values at AT / no heat treatment; shielding gas (SG) acc. EN ISO 14175;**
Dimensions: Ø 1,0; 1,2; 1,6 [mm]; Spools: K 300; other dimensions and packing units on demand;
****The mechanical properties of the deposit are mainly influenced by the base material and the heat treatment during and after welding**

6.2.1 Solid wires for gas shielded arc welding of cast iron, Cu- and Al-base-alloys as well as for special applications (continued)

Designation	Standard	Weld Metal Analysis [Wt.%]									Properties*					
capilla®		**C**	**Si**	**Mn**	**Ni**	**Fe**	**Cu**	**Al**	**Mg**	**Others**	**$R_{o0,2}$ [MPa]**	**R_m [MPa]**	**L=5d [%]**	**KV (ISO-V) [J]**	**Hardness [HB]**	**SG**
47 Ni 6 MIG	EN ISO 24373: S Cu 6328 (CuAl9Ni5Fe3Mn2) 2.0923	-	≤0,1	1,8	5	3	Bal.	9	-	-	-	690	16	-	150	I1
48 MIG	EN ISO 24373: S Cu5180A (CuSn6P) 2.1022	-	-	-	-	-	Bal.	-	-	Sn = 6; P< 0,2	150	260	20	-	80	I1
CuSn MIG	EN ISO 24373: S Cu 1898A (CuSn1MnSi) 2.1006	-	0,25	0,3	-	-	Bal.	-	-	Sn=1	-	230	-	-	70	I1
CuSn 12 MIG	EN ISO 24373: S CU 5410 (CuSn12P) 2.1056	-	-	-	-	-	Bal.	-	-	Sn=12 P=0,3	190	380	25	-	100	I1
CuAl 10 MIG	EN ISO 24373: S Cu 6180 (CuAl10Fe) 2.0937	-	0,1	-	-	1,5	Bal.	10	-	-	-	420	35	-	150	I1
CuSi 3 MIG	EN 14640: S Cu6560 (CuSi3Mn1) 2.1461	-	3	1	-	-	Bal.	-	-	-	120	350	40	-	-	I1
CuAg MIG	EN ISO 24373: S Cu 1897 (CuAg1) 2.1211	-	0,1	0,5	-	-	Bal.	-	-	Ag=0,9	-	200	30	-	60	I1

*** Min. values at AT / no heat treatment; shielding gas (SG) acc. EN ISO 14175;**
Dimensions: Ø 1,0; 1,2; 1,6 [mm]; Spools: K 300; other dimensions and packing units on demand

6.2.1 Solid wires for gas shielded arc welding of cast iron, Cu- and Al-base-alloys as well as for special applications (continued)

Designation	Standard	Weld Metal Analysis [Wt.%]									Properties*					
capilla®		**C**	**Si**	**Mn**	**Ni**	**Fe**	**Cu**	**Al**	**Mg**	**Others**	**$R_{o0,2}$ [MPa]**	**R_m [MPa]**	**L=5d [%]**	**KV (ISO-V) [J]**		**SG**
AlSi 12 MIG	EN ISO 18273: S Al4047 (AlSi 12) 3.2585	-	12	-	-	-	-	Bal.	-	Ti=0,1	>60	>130	>5	-		I1
AlSi 5 MIG	EN ISO 18273 S Al4043 (AlSi5) 3.2245	-	5	-	-	0,3	-	Bal.	-	Ti=0,1	>40	>120	>8	-	-	I1
Al 99,5 MIG	EN ISO 18273: S Al1450 (Al99,5Ti) 3.0805	-	0,1	0,01	-	-	0,01	Bal.	0,01	Ti=0,15	>20	>65	>35	-	-	I1
AlMg 3 MIG	EN ISO 18273: S Al5754 (AlMg 3) 3.3536	-	0,2	-	-	-	-	Bal.	3,2	Mn+Cr=0,5	>80	>190	20	-		I1
AlMg 5 MIG	EN ISO 18273: S Al5356 (AlMg5Cr) 3.3556	-	0,2	0,1	-	-	-	Bal.	5	Ti=0,1 Cr=0,1	>120	>250	>8	-		I1
AlMg 4,5 Mn MIG	EN ISO 18273: S Al5183 (AlMg4,5Mn0,7) 3.3548	-	0,2	0,8	-	-	-	Bal.	4,8	Cr=0,15; Fe≤0,1	>125	>275	>17	-		I1

*** Min. values at AT / no heat treatment; shielding gas (SG) acc. EN ISO 14175;**
Dimensions: Ø 1,0; 1,2; 1,6 [mm]; Spools: K 300; other dimensions and packing units on demand