

CENTRASHIELD (+ 1% Consistency)

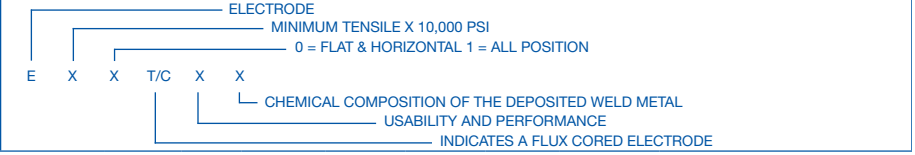
NO.	APPLICATION	MIX
#1	GTAW (All Metals), GMAW (Al & Cu)	75 Ar 25 He
#2	GTAW - GMAW, Al 3/4" - 1-1/4", Cu 1/2" - 3/4"	50 Ar 50 He
#3	GTAW - GMAW, Al 1/4" - Up", Cu 3/4" - 1-1/4"	25 Ar 75 He
#4	GMAW - Mild, Low Alloy & Stainless Steel Spray	98 Ar 2 O ₂
#5	GMAW - Mild & Low Alloy Steels Spray/Pulse	95 Ar 5 O ₂
#6	GMAW - Mild Steels S.C.T./Spray/Pulse	90 Ar 10 CO ₂
#6.2	GMAW - Stainless S.C.T./Spray/Pulse; Low Alloy Steel Spray/Pulse	98 Ar 2 CO ₂
#6.5	GMAW - Mild Steels Spray/Pulse; Low Alloy Steel Pulse	95 Ar 5 CO ₂
#6.8	GMAW - Mild Steels S.C.T./Spray/Pulse	92 Ar 8 CO ₂
#7	GMAW - Mild & Low Alloy Steels, Stainless FCAW, S.C.T. & Mod Globular	85 Ar 15 CO ₂
#8	GMAW - Mild Steels & Stainless FCAW, S.C.T. & Mod Globular	Ar 25 CO ₂
#9	GMAW - Stainless S.C.T.	Tri-Mix/90 He 7.5 Ar 2.5 CO ₂
#11	GTAW - Stainless, Manual	97.5 Ar 2.5 Hy
#12	GTAW - Stainless, Automatic	95 Ar 5 Hy
#20C	GMAW - Stainless S.C.T./Spray/Pulse	Tri-Mix 79 Ar 20 He 1 CO ₂
#23	GMAW - Mild Steel S.C.T./Spray/Pulse	91 Ar 4 O ₂ 5 CO ₂

Base Metal	Shielding Gas	Metal Transfer, GMAW	Remarks
Aluminum and Aluminum alloys (Al)	CentraShield 1	S.C.T. / Pulse	All position welding DCEP helps remove surface oxides.
	CentraShield 2	Modified Spray	Al Mg 1/4"
	CentraShield 3	Modified Globular	Al Mg 1/2" - 1" thickness
Copper and Copper Alloys All Bronze	CentraShield 1	S.C.T.	Up to 1/8" thickness, good wettability
	CentraShield 2	Modified Spray	Good penetration, good wettability to 1/4"
	CentraShield 3	Modified Globular	Higher heat input for 3/4" and over
Magnesium and Magnesium Alloys (Mg)	CentraShield 1	Modified Spray	Mg to 1/4" thickness; good wettability.
	CentraShield 2	Modified Globular	Mg to 1" thickness; high heat input.
	CentraShield 3	Globular	Highest energy input to weld; min. porosity.
Nickel Monel Inconel	CentraShield 1	Modified Spray	Wider arc column; greater heat input.
	CentraShield 2	Modified Globular	Greater heat input; more fluid weld pool, less porosity.
Low Alloy Steel	CentraShield 4	Spray	1/16" - 1/4" thickness; narrow HAZ; very good horizontal and flat fillet profiles.
	CentraShield 5	Spray	
	CentraShield 6	S.C.T./Modified Spray	Greater heat energy input to weld, very good wettability; no undercutting at toes.
	CentraShield 6.2	Spray/Pulse Spray	Great mix for all Low Alloy Steels, low weld oxidation.
	CentraShield 6.5	Pulse Spray	This blend is similar to CentraShield 6.2, but requires higher volts.
	CentraShield 7	S.C.T./Modified Globular	Provides optimum weld results.
	CentraShield 8	Short Circuit	Stable arc; excellent mechanical properties.
	CentraShield 23	S.C.T./Spray Transfer	Deeper penetration; good surface finish. Excellent weld pool control; all positions; fast travel speeds in spray mode.
Mild Steels	CentraShield 6.5	Spray/Pulse Spray	Typical use is Pulse Spray on thin to heavy metals, (Spray/Pulse Spray on a variety of materials, thicknesses, more tolerance to mill scale, better puddle control than Ar/O ₂)
	CentraShield 6.8	S.C.T./Spray/Pulse Spray	This blend is similar to CentraShield 6, but easier to Spray/Pulse Spray.
	CentraShield 7	S.C.T./Modified Globular	High energy multipurpose mix, great choice for mill scale, primers and galvanized in Spray. Less burn through potential than CentraShield 8 high mechanical properties.
	CentraShield 8	S.C.T.	All position welding, excellent pool control, surface appearance very good. This blend similar to CentraShield 7, but requires higher volts.
	CentraShield 23	S.C.T./Spray Transfer	Advanced gas for semiautomatic and automatic GMAW of mild steel, in flat as well as in all position welding.
Stainless Steel	CentraShield 6.2	S.C.T./Spray/Pulse Spray	Can be used on all Stainless/Duplex Steels, Ideal for food industry applications, S.C.T. using .035 wires on <10GA., reduces weld burn through, distortion and oxidation potential.
	CentraShield 9	Short Circuit	Excellent for flat and horizontal fillets, deep penetration, excellent appearance; Designed for S.C.T. on 300 series stainless steels; no corrosion resistance problems; narrow Heat Affected Zone; minimum undercutting and distortion, excellent for multipass stainless steel pipe welds.
	CentraShield 20C	S.C.T., Spray Pulse Spray	Designed S.C.T., Spray or Pulsed Spray to give high deposition and excellent color, less oxidizing potential than Argon/Oxygen mixes.

**FCAW
WELD PARAMETERS**

AWS Class	Mix No.	CFH	Wire Dia.	Current	Voltage	LBS/Hr.	% Efficiency	Uses
E71T - 1	6 & 8	30	.035	130-280	20 - 30	3 - 9	86	Mild & Med Carbon Steel
E71T - 1	6 & 8	30	.045	150-290	23 - 30	5 - 10	87	All position, can be used
E71T - 1	6 & 8	35	.052	180-310	24 - 32	5 - 10	87	Over Normal Rust and Mill Scale,
E71T - 1	6 & 8	35	1/16	180-400	25 - 34	5 - 12	87	No Porosity.
Metal Core E70C-6M	6 & 8	30	.035	130-280	23 - 29	4 - 9	92	No slag, Excellent Welding, Good Bead Appearance, Spray Type Transfer, All Position, Excellent for Robotic Welding.
	6 & 8	30	.045	150-350	24 - 30	8 - 12	95	
	6 & 8	35	.052	200-400	26 - 32	8 - 12	93	
	6 & 8	35	1/16	300-500	26 - 32	9 - 16	96	
E70T - 5	8	35	1/16	160-350	22 - 32	7 - 14	92	Good Impacts, Resists Cracking.
E91T1 - D1	8	35	1/16	180-300	21 - 28	5 - 12	92	For 100,000 LB. Tensile.
E80T1 - Ni2	8	35	5/64	200-400	23 - 27	5 - 10	87	Excellent for Position.

GUIDE TO AWS CLASSIFICATION



FOLLOW MANUFACTURES RECOMMENDATIONS ON SHIELDING GASES.
CHEMISTRY & MECHANICAL PROPERTIES CAN BE AFFECTED.

**GTAW
WELD PARAMETERS**

Material	Mix No.	Uses, Results	Current	Amperage	CFH	Elect. Dia.	Gas Cup dia.
Alum. 1/16	1	Manual, Good Arc Start	AC	55	15-20	1/16	3/8
Alum. 1/8	1 & 2	No. 2 Higher Speed	AC	110	20	3/32	3/8
Alum. 3/16	2 & 3	No. 3 Better Weld Quality	AC	150	25	1/8	7/16
Copper 3/16 & Less	2 & 3	Better Travel Speed	DCSP	180-250	20-30	3/32-1/8	3/8 & 7/16
Sil. Bronze 1/16	1	Penetration, Flat Bead	DCSP	60-90	10-15	1/16	3/8
Sil. Bronze 1/8	1 & 2	No. 2 Speed and Wetting	DCSP	100-140	10-15	1/16-3/32	3/8
Titanium*	1	Better Performance	DCSP	150-200	15-20	1/16-3/32	3/4
Magnesium	1	Good Penetration	AC	50-100	12	1/16-3/32	3/8
Magnesium	1 & 2	Shallow Penetration	DCRP	75-125	12	1/16-3/32	3/8
Magnesium	2	Deep Penetration	DCSP	75-160	15	1/16-3/32	3/8 & 7/16
Nickel Alloys	1 & 11	Hot Arc, Smooth Bead	DCSP	90-150	10-20	1/16-3/32	3/8
S. Steel 1/16	1	Fast Arc Start	DCSP	70-110	12	1/16	3/8
S. Steel 1/8	11	More Heat, Fast Speed	DCSP	65-105	12	1/16	3/8
S. Steel 3/32+	11 & 12	Speed Penetration, Color	DCSP	90-150	12-18	1/16-3/32	3/8 & 7/16

APPROXIMATE SETTINGS ONLY. TEST FOR YOUR REQUIREMENTS.
*TRAILING SHIELD OF ARGON REQUIRED. GAS LENS ON TORCH RECOMMENDED.

www.centralwelding.com



CENTRASHIELD

POCKET GUIDE
 FOR
CENTRASHIELD MIXES
 GMAW
 FCAW
 GTAW