

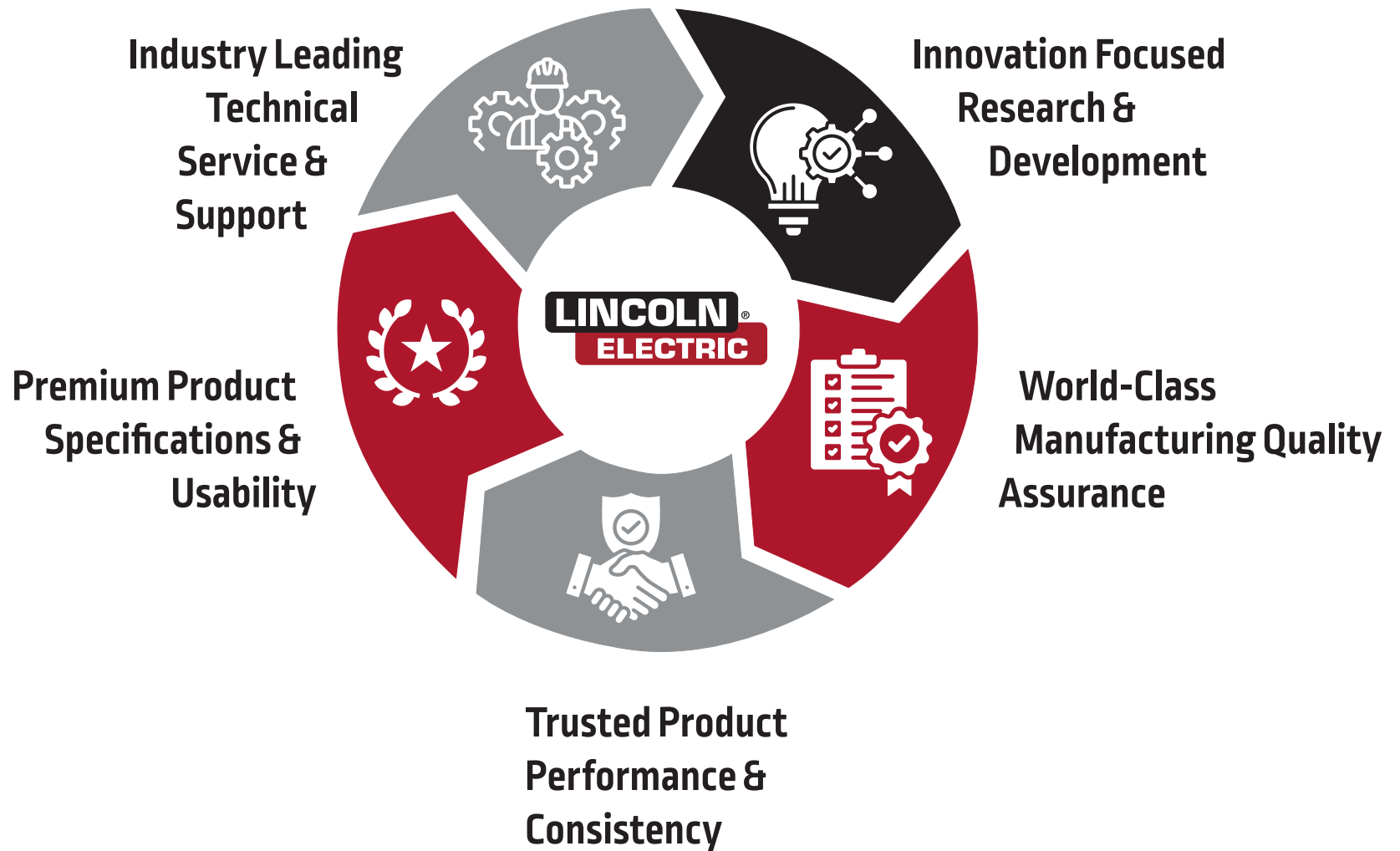


**ULTRACORE® AND OUTERSHIELD®
SELECTION GUIDE - 71T-1, -9, -12 WIRES**





THE LINCOLN ELECTRIC CONSUMABLE DIFFERENCE





FCAW-G CONSUMABLE SELECTION PROCESS

Choosing a gas shielded flux-cored (FCAW-G) consumable for your operation is a critical decision which entails numerous criteria. To help make this selection process easier, we have created this guide and five step process to go through the common specifications to consider and summarize the general differences between each Lincoln Electric UltraCore® and Outershield® model.

1 What Gas is Being Used?

100% CO₂

75/25% Mixed Gas

Varies by Station (both used)

2 What AWS and Agency Conformance(s) are Required?

AWS A5.20	1C-H8	9C-H8	12C-H8	1C-H4	9C-H4	12C-H4	1C-H16	9C-H16
	1M-H8	9M-H8	12M-H8	1M-H4	9M-H4	12M-H4	1M-H16	9M-H16
Agency	ABS	AWS D1.8	DNV	Lloyds Register	CWB/CSA W48			

3 What Mechanicals and Chemistry are Needed for the Procedure?

Mechanicals	CVN Impact Value	Yield Strength (ksi)	Tensile Strength (ksi)	Elongation	Typical or Actual Results
Chemistry	% Weld Deposit Composition by Element	Diffusible Hydrogen	Typical or Actual Results		

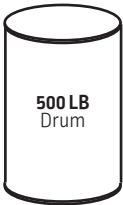
4 Understand each Sub-brand(s) Attributes, Features & Facts

Criteria	Operating Characteristics	Steel Type	Winding Type	Warranty	Manufacturing Location & More
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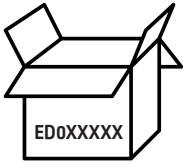
5 Select Wire Diameter, Packaging Type & Part Number

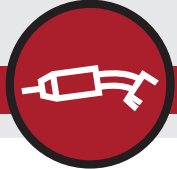


Package
Type



Part
Number





SELECTION GUIDE – SECTION INDEX

FCAW-G 71T Selection Guide

Gas Type: 100% CO₂

STEP 1: Select What Gas is Being Used

100% CO₂ SHIELDING GAS

SECTION 1
SEE PAGES 4 - 8

75/25% CO₂ SHIELDING GAS

SECTION 2
SEE PAGES 9 - 13

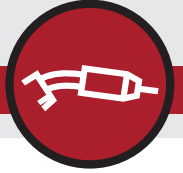
SHIELDING GAS VARIES (BOTH USED)

SECTION 3
SEE PAGES 14 - 18

ADDITIONAL RESOURCES

PACKAGING TYPES
EQUIPMENT & FEEDER COMPATIBILITY

SECTION 4
SEE PAGES 19 - 22

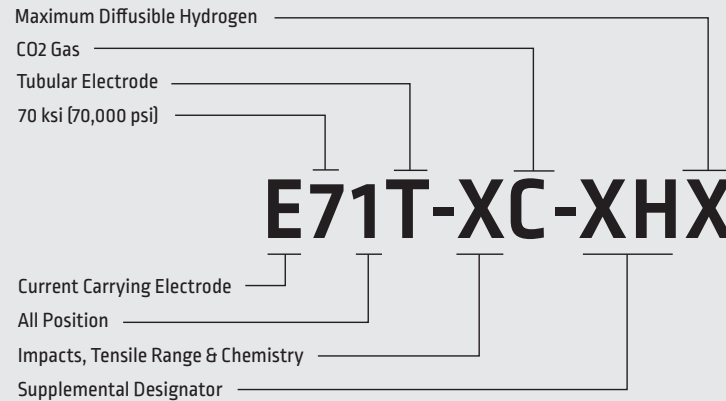


STEP 2: REVIEW AWS 5.20 & AGENCY CONFORMANCES REQUIREMENTS

FCAW-G 71T Selection Guide

Gas Type: 100% CO₂

Explaining the Syntax of AWS A5.20



AWS A5.20 CLASSIFICATION

Sub Brand	E71T-1C-H8	E71T-9C-H8	E71T-12C-JH8	E71T-1C-JH4	E71T-12C-JH4
UltraCore HD-C	•	•			
UltraCore 360 C71				•	
UltraCore HD-12C	•	•	•		
UltraCore 712C-H Plus					•

AGENCY CONFORMANCES

Sub Brand	ABS	AWS D1.8	DNV	Lloyds Register	CWB/CSA W48:
UltraCore HD-C	3YSA H10	YES	II YMS H10	3YS H10	E491T1-C1A3-CS1-H8
UltraCore 360 C71	3Y400SA H5	YES	IV Y40MS H5	4Y40S	E491T1-C1A4-CS1-H4
UltraCore HD-12C	3YSA H10		III YMS H10	3YS H10	E491T1-C1A4-CS2-H8
UltraCore 712C-H Plus	4YSA H5		IV Y40MS H5	4YS H5	E491T1-C1A5-CS2-H4



STEP 3: DETERMINE WHICH SUB-BRAND(S) MEET YOUR MECHANICAL & CHEMISTRY REQUIREMENTS

FCAW-G 71T Selection Guide
Gas Type: 100% CO₂

MECHANICALS

Sub Brand	Result Type	Charpy V-Notch ft-lb (J)					Yield Strength MPA (ksi)	Tensile Strength MPA (ksi)	Elongation %	Q2 Actual Mechanicals
		@ -18°C [0°F]	@ -29°C [-20°F]	@ -40°C [-40°F]	@ -45°C [-50°F]	@ -50°C [-60°F]	400 [58] min ⁽¹⁾	480-660 [70-95] ⁽¹⁾	22% min ⁽¹⁾	
UltraCore HD-C	As-welded	56 [75]	39 [52]				510 [74]	580-640 [84-93]	22%	Available At Request (Specials)
UltraCore HD-12C	As-welded	85 [115]		55 [74]			500 [73]	560-620 [81-90]	25%	
UltraCore 360 C71	As-welded			68 [92]			520 [76]	570-620 [83-90]	25%	Standard
UltraCore 712C-H Plus	As-welded	117 [158]		96 [130]	66 [89]	61 [82]	470-540 [68-78]	550-610 [80-88]	24-31%	
	Stress Relieved 1 hour @ 620°C [1150°F]			103 [139]	56 [75]		430-470 [62-68]	540-570 [78-82]	28-31%	

CHEMISTRY

Sub Brand	% Carbon [C] 0.12 max ⁽¹⁾	% Manganese [Mn] 1.75 max ⁽¹⁾	% Silicone [Si] 0.90 max ⁽¹⁾	% Sulfur [S] 0.03 max ⁽¹⁾	% Phosphorus [P] 0.03 max ⁽¹⁾	% Nickel [Ni] 0.50 max ⁽¹⁾	Diffusible Hydrogen (mL/100g weld deposit) 8 max ⁽²⁾
UltraCore HD-C	0.03-0.06	1.36-1.60	0.38-0.45	0.005-0.01	0.01-0.02		4.4-7.7
UltraCore 360 C71	0.08 max	1.19-1.36	0.39-0.40	0.014 max	0.020 max		1-2.3 ⁽²⁾
UltraCore HD-12C	0.04-0.06	1.19-1.43	0.27-0.37	0.006-0.01	0.01-0.02		4 - 7
UltraCore 712C-H Plus	0.05-0.07	1.32-1.59	0.41-0.55	0.005-0.011	0.02 max	0.03 max	1.2 - 3.8 ⁽²⁾

⁽¹⁾Indicates AWS Specification ⁽²⁾AWS Specification Maximum of 4.0

TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding intended application.



STEP 4: UNDERSTAND EACH SUB-BRAND(S) ATTRIBUTES, FEATURES & FACTS

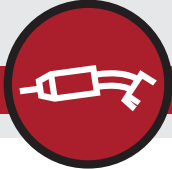
FCAW-G 71T Selection Guide

Gas Type: 100% C02

Sub Brand	Operating Characteristics					
	Deposition	Impact Toughness	Out-of-Position	Operating Range	Arc Characteristics	Bead Profile
UltraCore HD-C	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
UltraCore 360 C71	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
UltraCore HD-12C	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
UltraCore 712C-H Plus	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★

Sub Brand	Steel Type	Manufacturing Location	Wire Surface	Winding Type	Buy America Compliant	Warranty Period	Recommended Shelf Life
UltraCore HD-C	Strip	USA	Proprietary	Standard	Yes ⁽¹⁾	1 Year from Date of Purchase	3 Years Maximum
UltraCore 360 C71	Seamless	Europe	Proprietary Copper Coated	Precision Layer	No		
UltraCore HD-12C	Strip	USA	Proprietary	Standard	Yes ⁽¹⁾		
UltraCore 712C-H Plus	Strip	USA	Proprietary	Standard	Yes ⁽¹⁾		

⁽¹⁾Select part numbers are available meeting Buy America compliance



STEP 5: WITH SUB-BRAND(S) NARROWED, NOW FIND THE PART NUMBER FOR YOUR DESIRED WIRE DIAMETER AND PACKAGING SIZE

FCAW-G 71T Selection Guide
Gas Type: 100% C02

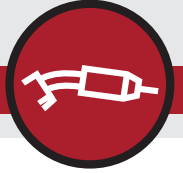
WIRE DIAMETER, PACKAGE SIZE AND PALLET QUANTITY

Diameter	.045 in				.052 in				1/16 in			
Package Type	15 lb Spool	33 lb Spool	50 lb Spool	500 lb Drum	15 lb Spool	33 lb Spool	50 lb Spool	500 lb Drum	15 lb Spool	33 lb Spool	50 lb Spool	500 lb Drum
Full Pallet Size	2,880 lb	2,970 lb ⁽¹⁾	1,800 lb	2,000 lb	2,880 lb	2,970 lb ⁽¹⁾	1,800 lb	2,000 lb	2,880 lb	2,970 lb ⁽¹⁾	1,800 lb	2,000 lb
UltraCore HD-C	ED033756	ED033755 ED037485 ⁽²⁾	ED033757 ED038176 ⁽²⁾	ED034255	ED033759	ED033758 ED037486 ⁽²⁾	ED033760	ED034376	ED033762	ED033761 ED037487 ⁽²⁾	ED033763 ED036529 ⁽³⁾ ED037488 ⁽²⁾	ED033785 ED038177 ⁽²⁾
UltraCore 360 C71		W000403771				W000403772				W000403773		
UltraCore HD-12C	ED035631	ED034274 ED038184 ⁽²⁾	ED038185 ⁽²⁾		ED035632	ED034275	ED038186 ⁽²⁾		ED036295	ED034276	ED038187 ⁽²⁾	
UltraCore 712C-H Plus	ED036662	ED034849				ED034848				ED034850 ED037034 ⁽²⁾		

⁽¹⁾ Pallet Size for Ultracore 360 C71 - 33 LB Spools is 1,650 LB

⁽²⁾ Buy America Compliant

⁽³⁾ Buy America - 50 lb coil



SELECTION GUIDE – SECTION INDEX

FCAW-G 71T Selection Guide

Gas Type: Mixed Gas

STEP 1: Select What Gas is Being Used

100% CO₂ SHIELDING GAS

SECTION 1
SEE PAGES 4 - 8

75/25% CO₂ SHIELDING GAS

SECTION 2
SEE PAGES 9 - 13

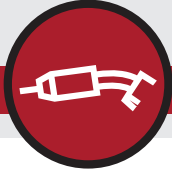
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SECTION 3
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ADDITIONAL RESOURCES

PACKAGING TYPES
EQUIPMENT & FEEDER COMPATIBILITY

SECTION 4
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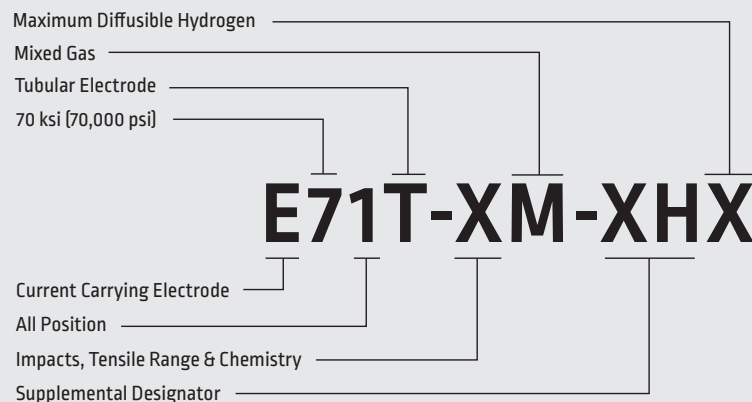


STEP 2: REVIEW AWS 5.20 & AGENCY CONFORMANCES REQUIREMENTS

FCAW-G 71T Selection Guide

Gas Type: Mixed Gas

Explaining the Syntax of AWS A5.20

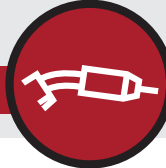


AWS A5.20 CLASSIFICATION

Sub Brand	E71T-1M-H8	E71T-9M-H8	E71T-12M-JH8	E71T-1M-JH4	E71T1-9M-JH4	E71T-12M-JH4
UltraCore 71A85	•	•				
UltraCore HD-M	•	•				
UltraCore 360 M71				•		
UltraCore 712A80	•	•	•			
UltraCore HD-12M	•	•	•			
UltraCore 712A80-H Plus				•	•	•

AGENCY CONFORMANCES

Sub Brand	ABS	AWS D1.8	DNV	Lloyds Register	CWB/CSA W48:
UltraCore 71A85	3YSA H10	YES	III YMS H10	3YS H10	E491T1-M20A3-CS1-H8 E491T1-M21A3-CS1-H8
UltraCore HD-M	3YSA H10		III YMS H10	3YS H10	E491T1-M20A3-CS1-H8
UltraCore 360 M71	3Y400SA H5	YES	III Y40MS (H5)	3Y40S	E491T1-M21A4-CS1-H4
UltraCore 712A80	4YSA H10		IV YMS H10	4YS H10	E491T1-M21A4-CS1-H8 E491T1-M21-CS2-H8
UltraCore HD-12M	3Y400SA H10, 3YSA H10		III YMS H10	3YS H10	E491T1-M21A4-CS2-H8
UltraCore 712A80-H Plus	4YSA H5		IV YMS H5	4YS H5	E491T1-M21A5-CS2-H4



STEP 3: DETERMINE WHICH SUB-BRAND(S) MEET YOUR MECHANICAL & CHEMISTRY REQUIREMENTS

FCAW-G 71T Selection Guide
Gas Type: Mixed Gas

MECHANICALS

Sub Brand	Result Type	Charpy V-Notch ft-lb (J)					Yield Strength MPA (ksi)	Tensile Strength MPA (ksi)	Elongation %	Q2 Actual Mechanicals
		@ -18°C [0°F]	@ -29°C [-20°F]	@ -40°C [-40°F]	@ -45°C [-50°F]	@ -50°C [-60°F]	400 [58] min ⁽¹⁾	480-660 [70-95]*	22% min ⁽¹⁾	
UltraCore 71A85	As-welded	69 [93]	51 [69]				500 [73]	570-650 [83-94]	27%	Available At Request (Specials)
UltraCore HD-M	As-welded		54 [73]	36 [48]			540 [78]	600-650 [87-95]	22%	
UltraCore 712A80	As-welded			89 [120]			500-570 [72-82]	580-620 [84-90]	22-29%	
UltraCore HD-12M	As-welded		73 [98]	42 [56]			510 [74]	580-620 [84-90]	22%	
UltraCore 360 M71	As-welded			38 [51]			480 [70]	550-630 [80-91]	24%	Standard
UltraCore 712A80-H Plus	As-welded			118 [159]	93 [126]	67 [90]	470-580 [68-84]	550-620 [80-90]	25-31%	
	Stress Relieved 1 hour @ 620°C [1150°F]			104 [141]	101 [136]		420-470 [60-68]	520-570 [76-82]	29-33%	

CHEMISTRY

Sub Brand	% Carbon [C] 0.12 max ⁽¹⁾	% Manganese [Mn] 1.75 max ⁽¹⁾	% Silicone [Si] 0.90 max ⁽¹⁾	% Sulfur [S] 0.03 max ⁽¹⁾	% Phosphorus [P] 0.03 max ⁽¹⁾	% Nickel [Ni] 0.50 max ⁽¹⁾	Diffusible Hydrogen (mL/100g weld deposit) 8 max ⁽¹⁾
UltraCore 71A85	0.03-0.06	1.35-1.63	0.46-0.63	0.011 max	0.015 max		2.5-8
UltraCore HD-M	0.04-0.06	1.35-1.58	0.45-0.58	0.01 max	0.01-0.015		3.3-8
UltraCore 360 M71	0.05-0.07	1.27-1.40	0.39-0.41	0.010 max	0.013 max		2-3.4 ⁽²⁾
UltraCore 712A80	0.03-0.06	1.36-1.53	0.32-0.36	0.012 max	0.015 max	0.32-0.36	2-6
UltraCore HD-12M	0.04-0.06	1.19-1.48	0.34-0.44	0.007-0.01	0.01-0.02		3.8-7
UltraCore 712A80-H Plus	0.05-0.09	1.30-1.51	0.38-0.47	0.013 max	0.02 max	0.02 max	0.7-4 ⁽²⁾

⁽¹⁾Indicates AWS Specification ⁽²⁾AWS Specification Maximum of 4.0

TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding intended application.



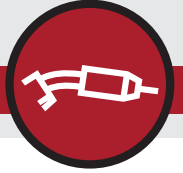
STEP 4: UNDERSTAND EACH SUB-BRAND(S) ATTRIBUTES, FEATURES & FACTS

FCAW-G 71T Selection Guide
Gas Type: Mixed Gas

Sub Brand	Operating Characteristics					
	Deposition	Impact Toughness	Out-of-Position	Operating Range	Arc Characteristics	Bead Profile
UltraCore 71A85	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
UltraCore HD-M	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
UltraCore 360 M71	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
UltraCore 712A80	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
UltraCore HD-12M	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
UltraCore 712A80-H Plus	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★

Sub Brand	Steel Type	Manufacturing Location	Wire Surface	Winding Type	Buy America Compliant	Warranty Period	Recommended Shelf Life
UltraCore 71A85	Strip	USA	Proprietary	Standard	Yes ⁽¹⁾	1 Year from Date of Purchase	3 Years Maximum
UltraCore HD-M	Strip	USA	Proprietary	Standard	No		
UltraCore 360 M71	Seamless	Europe	Proprietary Copper Coated	Precision Layer	No		
UltraCore 712A80	Strip	USA	Proprietary	Standard	Yes ⁽¹⁾		
UltraCore HD-12M	Strip	USA	Proprietary	Standard	No		
UltraCore 712A80-H Plus	Strip	USA	Proprietary	Standard	No		

⁽¹⁾Select part numbers are available meeting Buy America compliance



STEP 5: WITH SUB-BRAND(S) NARROWED, NOW FIND THE PART NUMBER FOR YOUR DESIRED WIRE DIAMETER AND PACKAGING SIZE

FCAW-G 71T Selection Guide
Gas Type: Mixed Gas

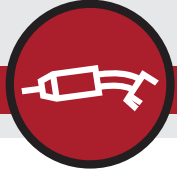
WIRE DIAMETER, PACKAGE SIZE AND PALLET QUANTITY

Diameter	.045 in				.052 in				1/16 in			
Package Type	15 lb Spool	33 lb Spool	50 lb Spool	500 lb Drum	15 lb Spool	33 lb Spool	50 lb Spool	500 lb Drum	15 lb Spool	33 lb Spool	50 lb Spool	500 lb Drum
Full Pallet Size	2,880 lb	2,970 lb ⁽¹⁾	1,800 lb	2,000 lb	2,880 lb	2,970 lb ⁽¹⁾	1,800 lb	2,000 lb	2,880 lb	2,970 lb ⁽¹⁾	1,800 lb	2,000 lb
UltraCore 71A85	ED031885 ED037917 ⁽²⁾	ED031663 ED035592 ⁽²⁾ ED033950 ⁽³⁾	ED031847 ED038178 ⁽²⁾	ED032047	ED031886	ED031664 ED035591 ⁽²⁾	ED031848	ED032048	ED031887 ED036597 ⁽²⁾	ED031665 ED035590 ⁽²⁾	ED031849 ED038179 ⁽²⁾	ED032049 ED038180 ⁽²⁾
UltraCore HD-M	ED033986	ED033989	ED033992			ED033990	ED033993	ED036442	ED033988	ED033991	ED033994	
UltraCore 360 M71		W000403768				W000403769				W000403770		
UltraCore 712A80		ED031675 ED038181 ⁽²⁾	ED031850	ED032050		ED031676 ED038182 ⁽²⁾	ED031851	ED032051		ED031677 ED036415 ⁽²⁾	ED031852 ⁽²⁾	ED032052
UltraCore HD-12M	ED036180	ED034277			ED036181	ED034278			ED036294	ED034279		
UltraCore 712A80-H Plus	ED036659	ED034845		ED037046		ED034846				ED034847		ED036602

(1) Pallet Size for UltraCore 360 M71 - 33 LB Spools is 1,650 LB

(2) Buy America Compliant

(3) Standard Q2 Product



SELECTION GUIDE – SECTION INDEX

FCAW-G 71T Selection Guide
Gas Type: Dual Gas

STEP 1: Select What Gas is Being Used

100% CO₂ SHIELDING GAS

SECTION 1
SEE PAGES 4 - 8

75/25% CO₂ SHIELDING GAS

SECTION 2
SEE PAGES 9 - 13

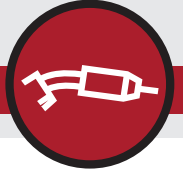
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PACKAGING TYPES
EQUIPMENT & FEEDER COMPATIBILITY

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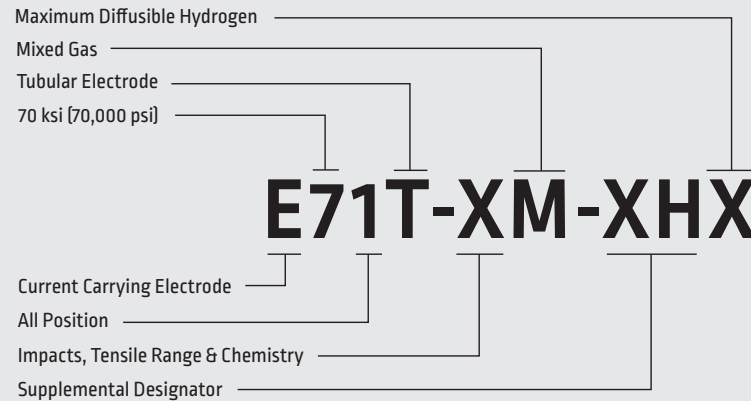


STEP 2: REVIEW AWS 5.20 & AGENCY CONFORMANCES REQUIREMENTS

FCAW-G 71T Selection Guide

Gas Type: Dual Gas

Explaining the Syntax of AWS A5.20



AWS A5.20 CLASSIFICATION

Sub Brand	E71T-1C/M-H8	E71T-9C/M-H8	E71T-1C/M-H16	E71T-9C/M-H16
UltraCore 71A75 Dual	•	•		
Outershield 71M			•	•
Outershield 71 Elite	•	•		

AGENCY CONFORMANCES

Sub Brand	ABS	AWS D1.8	DNV	Lloyds Register	CWB/CSA W48:
UltraCore 71A75 Dual					E491T1-C1A3-CS1-H8 E491T1-M21A3-CS1-H8
Outershield 71M	3YSA, 3YSA H15		III YMS H10	3YS H15	E491T1-C1A4-CS1-H16 E491T1-M21A4-CS1-H16
Outershield 71 Elite	3YSA H10	YES	III YMS H10	3YS H10	E491T1-GA3-CS1-H8 E491T1-M203-CS1-H8 E491T1-M21A3-CS1-H8 E491T1-C1A3-CS1-H8



STEP 3: DETERMINE WHICH SUB-BRAND(S) MEET YOUR MECHANICAL & CHEMISTRY REQUIREMENTS

FCAW-G 71T Selection Guide
Gas Type: Dual Gas

MECHANICALS

Sub Brand	Typical Result Gas Type	Charpy V-Notch ft-lb (J)			Yield Strength MPA (ksi) 400 [58] min*	Tensile Strength MPA (ksi) 480-660 [70-95] ⁽¹⁾	Elongation % 22% min ⁽¹⁾	Q2 Actual Mechanicals
		@ -18°C [0°F]	@ -29°C [-20°F]	@ -40°C [-40°F]				
UltraCore 71A75 Dual	100% CO ₂		29 [39]		510 [74]	560-640 [81-92]	23%	Available At Request (Specials)
	75% Ar, 25% CO ₂		51 [69]		530 [77]	580-640 [84-92]	23%	
Outershield 71M	100% CO ₂	115 [155]	103 [139]	106 [143]	470 [68]	540-600 [78-87]	26%	
	75% Ar, 25% CO ₂	99 [134]		96 [130]	540 [78]	630-650 [91-94]	23%	
Outershield 71 Elite	100% CO ₂		65 [88]	65 [88]	450 [81]	610 [89]	30%	
	75% Ar, 25% CO ₂		77 [104]	77 [104]	590 [86]	650 [95]	25%	

CHEMISTRY

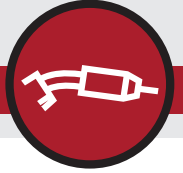
Sub Brand	Typical Result Gas Type	% Carbon (C) 0.12 max ⁽¹⁾	% Manganese (Mn) 1.75 max ⁽¹⁾	% Silicone (Si) 0.90 max ⁽¹⁾	% Sulfur (S) 0.03 max ⁽¹⁾	% Phosphorus (P) 0.03 max ⁽¹⁾	Diffusible Hydrogen (mL/100g weld deposit) 8 max ⁽¹⁾
UltraCore 71A75 Dual	100% CO ₂	0.03-0.05	1.17-1.45	0.40-0.52	0.01	0.020 max	3-6.2
	75% Ar, 25% CO ₂	0.03-0.05	1.35-1.60	0.51-0.62	0.01	0.020 max	4-7.1
Outershield 71M	100% CO ₂	0.05-0.07	1.15-1.36	0.31-0.41	0.014 max	0.014 max	10.7 ⁽²⁾
	75% Ar, 25% CO ₂	0.06-0.08	1.43-1.61	0.46-0.53	0.014 max	0.014 max	9.8
Outershield 71 Elite	100% CO ₂	0.06	1.21	0.41	0.01	0.01	4.2
	75% Ar, 25% CO ₂	0.06	1.45	0.59	0.01	0.01	5.7

⁽¹⁾Indicates AWS Specification

⁽²⁾AWS Specification Maximum of 16.0

TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding intended application.



STEP 4: UNDERSTAND EACH SUB-BRAND(S) ATTRIBUTES, FEATURES & FACTS

FCAW-G 71T Selection Guide
Gas Type: Dual Gas

Sub Brand	Operating Characteristics					
	Deposition	Impact Toughness	Out-of-Position	Operating Range	Arc Characteristics	Bead Profile
UltraCore 71A75 Dual	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Outershield 71M	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Outershield 71 Elite	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★

Sub Brand	Steel Type	Manufacturing Location	Wire Surface	Winding Type	Buy America Compliant	Warranty Period	Recommended Shelf Life
UltraCore 71A75 Dual	Strip	USA	Proprietary	Standard	No	1 Year from Date of Purchase	3 Years Maximum
Outershield 71M	Green Rod	USA	Proprietary	Standard	No		
Outershield 71 Elite	Strip	Canada	Proprietary	Standard	No		



STEP 5: WITH SUB-BRAND(S) NARROWED, NOW FIND THE PART NUMBER FOR YOUR DESIRED WIRE DIAMETER AND PACKAGING SIZE

FCAW-G 71T Selection Guide
Gas Type: Dual Gas

WIRE DIAMETER, PACKAGE SIZE AND PALLET QUANTITY

Diameter	.035 in		.045 in					
Package Type	10 lb Spool	25 lb Spool	10 lb Spool	15 lb Spool	25 lb Spool	33 lb Spool	50 lb Spool	500 lb Drum
Full Pallet Size	450 lb	2250 lb	450 lb	2,880 lb	2250 lb	2,970 lb	1,800 lb	2,000 lb
UltraCore 71A75 Dual				ED031882		ED031669	ED031844	ED032044
Outershield 71M	ED026804	ED026805	ED020836		ED022659	ED030007	ED020844 ⁽¹⁾	ED027364
Outershield 71 Elite				ED029418		ED029201	ED029202 ⁽²⁾	

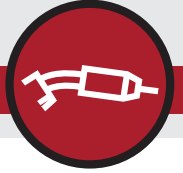
WIRE DIAMETER, PACKAGE SIZE AND PALLET QUANTITY

Diameter	.052 in					1/16 in			
Package Type	15 lb Spool	25 lb Spool	33 lb Spool	50 lb Spool	500 lb Drum	25 lb Spool	33 lb Spool	50 lb Spool	500 lb Drum
Full Pallet Size	2,880 lb	2250 lb	2,970 lb	1,800 lb	2,000 lb	2250 lb	2,970 lb	1,800 lb	2,000 lb
UltraCore 71A75 Dual	ED031883		ED031670	ED031845	ED032045		ED031671	ED031846	ED032046
Outershield 71M		ED022660	ED030008	ED020845 ⁽¹⁾	ED029778	ED022661	ED030009	ED020846 ⁽¹⁾	ED029779
Outershield 71 Elite	ED029419		ED029204	ED029205 ⁽²⁾			ED029206	ED029207 ⁽²⁾	ED029387 ⁽³⁾

(1) 50 lb Coil

(2) 60 lb. Coil (Pallet Size - 3240 lb)

(3) 600 lb. drum (Pallet Size - 2400 lb)



SELECTION GUIDE – SECTION INDEX

FCAW-G 71T Selection Guide

Gas Type: Mixed Gas

STEP 1: Select What Gas is Being Used

100% CO₂ SHIELDING GAS

SECTION 1
SEE PAGES 4 - 8

75/25% CO₂ SHIELDING GAS

SECTION 2
SEE PAGES 9 - 13

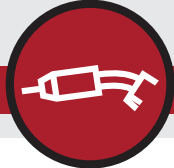
SHIELDING GAS VARIES (BOTH USED)

SECTION 3
SEE PAGES 14 - 18

ADDITIONAL RESOURCES

PACKAGING TYPES
EQUIPMENT & FEEDER COMPATIBILITY

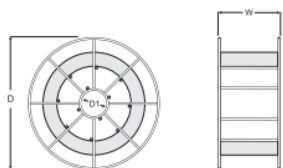
SECTION 4
SEE PAGES 19 - 22



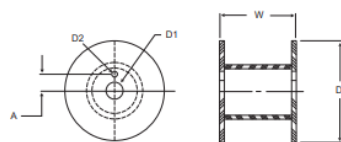
PACKAGING TYPES & DETAILED DIMENSIONS

FCAW-G 71T Selection Guide
Additional Resources

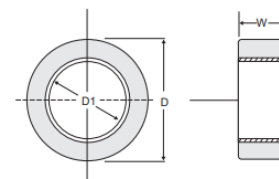
Steel Spools



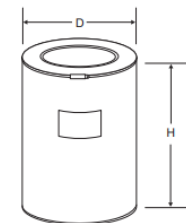
Plastic/Fiber Spools



Coils



Drums



FCAW-G PACKAGING - TYPES, WEIGHTS & DIMENSIONS

TAP & PACKAGING TYPES, WEIGHTS & DIMENSIONS								
Package Type	Weight lb	Outside Diameter in	Inside/Arbor Diameter in	Pin Hole Diameter in	Width in	Outer Height in	Core Inside Diamater in	Core Height in
Steel Spool	25	11.81	2.05	-	4.25	-	-	-
	33							
	44							
Plastic Spool	10	8	2.03	0.44	2.16	-	-	-
	15				3			
	25	12			4			
	33							
Fiber Spool	33	12	2.03	0.44	4.3	-	-	-
	50	14		0.44				
Coil	50 & 60	16.5	12	-	4.6	-	-	-
Speed-Feed® Drum	500 & 600	23.4	-	-	-	34.8	16	17
Accu-Trak® Drum	500 & 600	23.4	-	-	-	34.8	8.4	34



EQUIPMENT & FEEDER COMPATIBILITY

FCAW-G 71T Selection Guide
Additional Resources

LINCOLN ELECTRIC FEEDER & EQUIPMENT - FCAW-G DIAMETER AND PACKAGING COMPATIBILITY

Equipment Type	Lincoln Electric Equipment Name	FCAW-G - Recommended Wire Diameter Range in	Compatible FCAW-G Packages / Weights							
			10 Lb	15 Lb	25 LB	33 Lb	44 LB	50 Lb	60 Lb	500 Lb (Drum)
Portable Wire Feeders	Activ8X®	0.035 - 5/64	•	•						
	Activ8X® Pipe™	0.035 - 5/64	•	•						
	LN-25® Pro® Base	0.030 - 5/64	•	•	•	•	•			
	LN-25® Pro® Extra Torque	0.030 - 3/32	•	•	•	•	•			
	LN-25X® Base	0.030 - 5/64	•	•	•	•	•			
	LN-25X® Extra Torque	0.030 - 3/32	•	•	•	•	•			
	Power Feed® 25M	0.030-3/32	•	•	•	•	•			
Bench & Boom Wire Feeders	Power Feed® 84 Single	0.035 - 5/64	•	•	•	•	•	•	•	•
	Power Feed® 84 Dual	0.035 - 5/64	•	•	•	•	•	•	•	•
	LF-72	0.030-5/64	•	•	•	•	•	•	•	•
	LF-74	0.030-5/64	•	•	•	•	•	•	•	•
	Flex Feed® 74HT	0.035 - 0.120	•	•	•	•	•	•	•	•
	Flex Feed® 84	0.035 - 0.120	•	•	•	•	•	•	•	•
	DLF™-82	0.030 - 5/64	•	•	•	•	•	•	•	•
	PIPEFAB™ Feeder	0.030 - 5/64	•	•	•	•	•	•	•	•
Robotic Wire Feeders	AutoDrive® 4R100	0.035-0.045	Contact your local TSR for application specific request							
	AutoDrive® 4R220	0.035-5/64								
Internal Wire Drive	POWER MIG® 256	0.035 – .045	•	•	•	•	•			
	POWER MIG® 260	0.035 – .045	•	•	•	•	•			
	POWER MIG® 262	0.035 – .045	•	•	•	•	•			
	POWER MIG® 360MP	0.035 – .045	•	•	•	•	•			
	Power Wave® 300C	0.045– 1/16	•	•	•	•	•			

• Compatible

Test Results Disclaimer

Test results for deposition rates, arc time, and mechanical properties were obtained from a weld produced and tested according to prescribed standards. Actual results will vary depending on many factors, including, but not limited to: the base material or substrate being welded, the welding procedure and welding process, and the unique conditions present in the workplace or welding environment. Users and employers have the sole responsibility for and control over workplace conditions, including the manner in which work is performed and the safety measures taken. Always read and follow applicable OSHA regulations as well as all information on product labeling and safety data sheets when using Lincoln Electric products. Safety data sheets for Lincoln Electric products can be found at <http://www.lincolnelectric.com/en-us/support/msds/Pages/sds-search.aspx>. Users and employers should have an industrial hygienist check worker exposure levels to be certain that they are within applicable OSHA PEL and ACGIH TLV limits for the particular application or weldment.

CUSTOMER ASSISTANCE POLICY

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