

ARCTEC® FCS 316L

Conforms to: AWS 5.22-95 E316LTI-1/TI-4
 ASME SFA 5.22
 CWB to AWS A5.22-95 E309LTI-1/TI-4

GENERAL CHARACTERISTICS:

ARCTEC® FCS 316L is an all position flux cored wire for joining stainless steels. This filler metal has a nominal composition of 18% chromium and 12% nickel and 2% molybdenum. The low carbon content increases resistance to intergranular corrosion without the addition of stabilizers such as columbium or titanium. The presence of molybdenum provides increased creep resistance at elevated temperatures. It produces a smooth weld bead and can be used in all positions observing recommended operating parameters. Shielding gas is required.

APPLICATIONS:

ARCTEC® FCS 316L is most often used for joining and cladding of type 316 and similar alloys.

MECHANICAL PROPERTIES:

Tensile Strength 89,200psi(615Mpa)	Yield Strength 69,000psi(476Mpa)	Elongation 36%-2"
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OPERATING PARAMETERS:

WELDING PROCESS: FCAW POLARITY: DC Reverse SHIELDING GAS: 75% Argon /25% CO₂ recommended. 100% CO₂ can be used

Optimum Operating Parameters					
Diameter	Position	Stickout	Wire Feed Speed	Amps	Volts
.035"	Flat	1/2-3/4"(12.5-19mm)	365"/min. (155mm/sec)	130-140	24-25
.035"	Horizontal	1/2-3/4"(12.5-19mm)	365"/min. (155mm/sec)	130-140	24-25
.035"	Vertical up	1/2-3/4"(12.5-19mm)	310"/min. (130mm/sec)	110-120	22-23
.035"	Overhead	1/2-3/4"(12.5-19mm)	320"/min. (135mm/sec)	120-130	23-24
.045"	Flat	1/2-3/4"(12.5-19mm)	450"/min. (191mm/sec)	180-200	25-27
.045"	Horizontal	1/2-3/4"(12.5-19mm)	450"/min. (191mm/sec)	180-200	24-32
.045"	Vertical up	1/2-3/4"(12.5-19mm)	325"/min. (138mm/sec)	150-170	24-26
.045"	Overhead	1/2-3/4"(12.5-19mm)	425"/min. (180mm/sec)	175-195	25-28
1/16"	Flat	5/8-1"(15-25mm)	264"/min. (112mm/sec)	220-240	24-31
1/16"	Horizontal	5/8-1"(15-25mm)	235"/min. (99mm/sec)	200-220	24-29
1/16"	Vertical up	5/8-1"(15-25mm)	220"/min. (93mm/sec)	190-210	24-27
1/16"	Overhead	5/8-1"(15-25mm)	235"/min. (99mm/sec)	170-270	24-29

STANDARD SIZE AND PACKAGING:

Size			Packaging
.035" (.90mm)	.045" (1.2mm)	1/16" (1.5mm)	12" spools (15 Kg)

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