

ARCTEC® FCS 309L

Conforms to: AWS A5.22-95 E309LT1-1/T1-4
 ASME SFA5.22
 CWB to AWS A5.22-95 E309LT1-1/T1-4



GENERAL CHARACTERISTICS:

ARCTEC® FCS 309L is an all position flux cored wire for joining stainless steels. This filler metal has a nominal composition of 25% chromium and 12% nickel. The low carbon content increases resistance to intergranular corrosion without the addition of stabilizers such as columbium or titanium. It produces a smooth weld bead and can be used in all positions observing recommended operating parameters. Shielding gas is required.

APPLICATIONS:

ARCTEC® FCS 309L is designed for joining and cladding of types 309 stainless steels in wrought or cast form and is used extensively for welding type 304 to mild or carbon steel. Also used for welding 304 clad steels and for applying cladding to carbon steel.

MECHANICAL PROPERTIES:

Tensile Strength 84,500psi(589MPa)	Yield Strength 66,500psi(459MPa)	Elongation 37%-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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