

Inweld 309L-17

AWS A5.4 E309L-17

Chemical Composition of Inweld 309L-17

Fe	C	Cr	Ni	Mo	Mn	Si	P	S	N	Cu
Balance	0.04	22.0	12.0	0.75	0.5-2.5	0.90	0.04	0.03	---	0.75
		-25.0	-14.0							

Single values are maximum unless otherwise specified.

Description and Applications

309L-17 is very similar to 309L-16, but the coating contains more silica and less titanium resulting in a “spray arc” effect when used on horizontal fillet welds. This also produces a weld deposit with a finer ripple appearance that is more flat to concave. 309L-17 has a slower freezing slag giving it better handling characteristics when using a drag technique. For all-position welding austenitic stainless such as 309, 310, 316, 321 and 347 as well as martensitic stainless 410, 420, 431 and ferritic stainless 430, 443 and 446. All of these stainless grades can be welded to each other or to mild and carbon steels. Weld deposits are very ductile with a 0.04 maximum carbon, which greatly reduces the formation of chromium carbides, thereby protecting and maintaining the corrosion resistance qualities of the weld deposit at room temperatures as high as 2000°F. Commonly used for dissimilar applications such as stainless steel to carbon and low alloy steel; and for overlaying un-alloyed structural steel. Typical applications are found in furnace parts, kiln linings and treatment boxes.

Typical Weld Metal Properties

	<u>AWS Spec</u>
Tensile Strength:	86,000 psi
Yield Strength:	60,000 psi
Elongation:	30%

Recommended Parameters

SMAW (DCEP – Electrode+)

<u>Wire Diameter</u>	<u>Voltage</u>	<u>Amperage</u>
3/32”		50-80
1/8”		70-110
5/32”		100-140

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