Inweld 309L-16

AWS A5.4 E309L-16

Chemical Composition of Inweld 309L-16

Fe	C	Cr	Ni	Mo	Mn	Si	P	S	N	Cu
Balance	0.04	22.0 -25.0	12.0 -14.0	0.75	0.5-2.5	0.9	0.04	0.03	---	0.75

Single values are maximum unless otherwise specified.

Description and Applications

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, 442, and 446. All of these stainless steel grades can be welded to each other or to mild and carbon steels. Weld deposits are very ductile with a 0.04 carbon, which greatly reduces the formation of chromium carbides, thereby protecting and maintaining the corrosion resistant qualities of the weld deposit at temperatures as high as 2000°F. Finely rippled bead appearance that requires no cosmetic touch-up. Commonly used for dissimilar applications such as stainless steel to carbon and low alloy steel and for overlaying unalloyed structural steel. Typical applications are found in furnace parts, kiln linings, and heat treatment boxes.

Typical Weld Metal Properties

	AWS Spec
Tensile Strength:	87,000 psi
Yield Strength:	65,000 psi
Elongation:	30%

Recommended Parameters

SMAW (DCEP – Electrode+)

Wire Diameter	Voltage	Amperage
1/16”		25-35
3/32”		55-75
1/8”		75-110
5/32”		90-140
3/16”		120-185