

AWS Spec. Alloys: Stainless Steel, A5.4

E308L-16 A low-carbon stainless-steel electrode with a nominal composition of 20% Cr and 10% Ni. Characterized by a smooth arc with easy slag removal, this electrode is most often used for welding base metal of similar composition - such as AISI types 301, 302, 304 and 305. Use AC and DCEP. Store dry and sealed or in a rod oven.

| Code # | Size | Type & Specification | Amperage | Tensile | Yield | Elongation |
|------------|-------|----------------------|----------|------------|------------|------------|
| 120-4-0308 | 1/8" | CLASS E308L-15 & 16 | 65-100 | 95,000 psi | 30,000 psi | 45% |
| 120-5-0308 | 3/32" | - | 40-70 | 655 MPa | 207 MPa | |

E309L-16 This stainless steel electrode (nominal composition 23.5% Cr, 13% Ni) is commonly used for joining type 304 to carbon-steel or welding similar alloys in wrought or cast form. The low-carbon content improves the intergranular corrosion resistance. This electrode is characterized by a smooth-arc, flat fillet weld profile with easy slag removal. Use on AC or DCEP. Store dry and sealed or in a rod oven.

| Code # | Size | Type & Specification | Amperage | Tensile | Yield | Elongation |
|------------|-------|------------------------|----------|------------|------------|------------|
| 120-4-0309 | 1/8" | AWS A5.4, ASME SFA 5.4 | 65-100 | 85,000 psi | 30,000 psi | 40% |
| 120-5-0309 | 3/32" | CLASS E309L-15 | 40-70 | 586 MPa | 207 MPa | |

E316L-16 This electrode deposits a nominal composition of 18.5% Cr, 12.5% Ni and 2.5% Mo and is commonly used for welding stainless steel of the AISI Type 316 or 316L. The low-carbon content improves the corrosion resistance, and the addition of Molybdenum improves pitting resistance and increases resistance to high temperatures (1600°F - 870°C). Characterized by a smooth arc, low spatter and low operating amperage, the E316L type is excellent for many stainless steel applications. Use AC or DCEP.

| Code # | Size | Type & Specification | Amperage | Tensile | Yield | Elongation |
|------------|-------|------------------------|----------|------------|------------|------------|
| 120-3-0316 | 5/32" | AWS A5.4, ASME SFA 5.4 | 100-145 | 90,000 psi | 40,000 psi | 40% |
| 120-4-0316 | 1/8" | CLASS E316L-15 & 16 | 65-100 | 621 MPa | 276 MPa | |
| 120-5-0316 | 3/32" | - | 40-70 | | | |

AWS Spec. Alloys: Low Alloy Steel, A5.5

E11018-M A high-strength low-alloy (HSLA) low-hydrogen electrode that was developed for welding T-1 steels in all applications. It has a very high yield strength which makes it ideal for heavy equipment. Excellent for padding or buildup prior to hardfacing. Preheat is often required when welding on HSLA steels. Use AC or DCEP.

| Code # | Size | Type & Specification | Amperage | Tensile | Yield | Elongation |
|------------|-------|----------------------|----------|-------------|-------------|------------|
| 120-2-0110 | 3/16" | AWS A5.5 | 160-230 | 110,000 psi | 100,000 psi | 21% |
| 120-3-0110 | 5/32" | ASME SFA5.5 | 120-170 | 758 MPa | 689 MPa | |
| 120-4-0110 | 1/8" | - | 90-140 | | | |
| 120-5-0110 | 3/32" | ABS AWS 5.5 | 60-85 | | | |

<https://dod.emall.dia.mil>

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 Available in select sizes only