

## Wire/flux combination, high alloyed

Brand Standard AWS Standard EN ISO	Chemical Composition (%) Typical Values	Mechanical Properties Typical Values	Ø (mm)	Approvals	Characteristics and Applications
<b>Thermanit JE-308L - Marathon 431</b>  AWS A5.9: ER308L  EN ISO 14343-A: S 19 9 L  EN ISO 14174: SA FB 2 DC	Wire C: 0.015 Si: 0.45 Mn: 1.6 Cr: 20.0 Ni: 10.0  Weld metal C: 0.015 Si: 0.60 Mn: 1.3 Cr: 19.5 Ni: 9.8	UTS: ≥550 MPa YS: ≥320 MPa El: ≥30% CVN Impact: +20°C : ≥65J -196°C: 40J	1.6 2.4 3.2 4.0	TÜV (06114), CE	Thermanit JE-308L - Marathon 431 is a wire/flux combination for submerged arc welding of stainless steel grades such as 1.4306 / 304L. Solid SAW wire of S 19 9 L / ER308L type for joining and surfacing applications with matching and similar stabilized and unstabilized austenitic CrNi(N) and CrNiMo(N)-steels and cast steel grades. Max. service temperature 350°C. Corrosion resistance similar to matching low-carbon and stabilized austenitic 18Cr-8Ni(N)-steels and cast steel grades. Good toughness at subzero temperatures as low as -196°C. Marathon 431 is an agglomerated basic flux that ensures good welding properties with nice bead appearance and good slag detachability. For more information regarding this sub-arc welding flux, see the separate datasheet.
<b>Thermanit GE-316L - Marathon 431</b>  AWS A5.9: ER316L  EN ISO 14343-A: S 19 12 3 L  EN ISO 14174: S A FB 2 DC	Wire C: 0.01 Si: 0.45 Mn: 1.6 Cr: 18.5 Ni: 12.2 Mo: 2.7  Weld metal: C: 0.01 Si: 0.55 Mn: 1.2 Cr: 18.0 Ni: 12.2 Mo: 2.7	UTS: ≥550 MPa YS: ≥350 MPa El: ≥30% +20°C: ≥70J -120°C: ≥60J	2.0 2.4 3.2 4.0	TÜV(06113), CE	Thermanit GE-316L - Marathon 431 is a wire-flux-combination for welding of stainless steel grades such as 1.4435 / 316L. Solid SAW wire of S 19 12 3 L / ER316L type for joining and surfacing application with matching and similar unstabilized austenitic CrNi(N) and CrNiMo(N)-steels and cast steel grades. Corrosion resistance similar to matching low-carbon and stabilized austenitic CrNiMo-steels. Max. service temperature 400°C. Low temperature service down to -196°C. Marathon 431 is an agglomerated basic flux that ensures good welding properties with nice bead appearance and good slag detachability. For more information regarding this sub-arc welding flux, see the separate datasheet.