



Stainless Steel Consumables for SMAW Welding

| Product Name | ASME/AWS | Applications and Characteristics | Typical Chemical Analysis % | | Typical Mechanical Properties | |
|--------------------------|--------------------|--|---------------------------------|---|-------------------------------|----|
| | | | Tensile Strength MPa | EL % | | |
| RevoWel 308L-16 | A5.4 E308L-16 | REVOWEL 308L-16 is a lime titanium oxide type stainless steel covered electrode designed for welding type 304, 304L base material with low carbon content, depositing weld metal containing approximately 19%Cr-9%Ni. | C Mn Si Cr Ni | 0.03 0.66 0.80 19.3 9.80 | 556 | 47 |
| RevoWel 309L-16 | A5.4 E309L-16 | REVOWEL 309L-16 is a lime titanium oxide type covered electrode for low carbon content stainless steel, depositing weld metal containing approximately 23%Cr-13%Ni. This electrode is used primarily for welding type 316L and 316 clad steels, or dissimilar welding between carbon steel & stainless steel. | C Mn Si Cr Ni | 0.03 1.20 0.72 23.7 13.40 | 570 | 39 |
| RevoWel 309LMo-16 | A5.4 E309LMo-16 | REVOWEL 309LMo-16 is a lime titanium oxide type covered electrode for low carbon content stainless steel, depositing weld metal containing approximately 2.5%Mo. This electrode is used primarily for welding type 316L and 316 clad steels, or dissimilar welding between carbon steel & stainless steel. | C Mn Si Cr Ni Mo | 0.03 1.25 0.63 22.89 12.94 2.5 | 650 | 40 |
| RevoWel 316L-16 | A5.4 E316L-16 | REVOWEL 316L-16 is a lime titanium oxide type covered electrode for Type 316 low carbon content stainless steel, depositing weld metal containing approximately 18%Cr 12%Ni 2.0%Mo. | C Mn Si Cr Ni Mo | 0.02 1.63 0.71 17/91 12.38 2.5 | 560 | 41 |
| RevoWel 347-16 | A5.4 E347-16 | REVOWEL 347-16 is a niobium bearing rutile type covered electrode for Ta + Nb stabilized 18%Cr-8%Ni steel, especially for high temperature services. This electrode is used primarily for welding type 347 and 321 steel, the depositing weld metal containing Niobium which promotes good inter-granular corrosion resistance. | C Mn Si Cr Ni Mo | 0.04 0.79 0.89 19.28 9.5 2.49 | 643 | 38 |

Stainless Steel Consumables for FCAW Welding

| | | | | | | |
|-----------------------|------------------------|---|---------------------------------|---|--------------------|----|
| RevoCor 308LT1 | A5.22 E308LT1-1/4 | REVCOR 308LT-1 is a rutile flux cored tubular wire for all-positional welding capable of depositing a nominal 18%Cr-8%Ni low carbon weld metal for the welding of stainless steels of similar composition. The weld metal provides a good resistance to inter-granular corrosion and is suitable for applications operating at temperatures up to 300°C. | C Mn Si Cr Ni | 0.02 1.31 0.72 20.5 10.5 | 550 33J @ -196C | 45 |
| RevoCor 308HT1 | A5.22 E308HT1-1/4 | RevoCor 308HT-1 is a rutile flux cored tubular wire for all-positional welding of types 304H and 347H stainless when high temperature service is required. | C Mn Si Cr Ni | 0.06 1.42 0.72 19.9 9.4 | 565 34J @ -196 | 34 |
| RevoCor 309LT1 | A5.22 E309LT1-1/4 | REVCOR 309LT1-1 is a gas shielded rutile flux cored wire for all-positional welding capable of depositing a low C - 23%Cr -12%Ni weld metal for welding joints between stainless steel to mild and medium tensile steels. | C Mn Si Cr Ni | 0.03 1.20 0.5 22.2 12.8 | 586 | 38 |
| RevoCor 309LMo | A5.22 E309LMoT1-1/4 | REVCOR 309LMo is a gas shielded rutile flux cored wire for all-positional welding capable of depositing a low C-23%Cr -12%Ni - 2.5%Mo weld metal for welding joints between stainless steel to mild and medium tensile steels. | C Mn Si Cr Ni Mo | 0.02 0.90 0.74 23.4 13.2 2.6 | 660 | 31 |



| | | | | | | |
|----------------------------|----------------------|---|---------------------------------|--|--------------------|----|
| RevoCor 316LT1 | A5.22 E316LT1-1/4 | REVOCOR 316LT-1 is a gas shielded rutile flux cored wire for all-positional welding capable of depositing a nominal low C-19%Cr-12%Ni-2.6%Mo weld metal for the welding of 316L grade stainless steels. Being a molybdenum bearing stainless steel provides good resistance to pitting corrosion and crevice corrosion in non-oxidising acids. | C Mn Si Cr Ni Mo | 0.02 1.70 0.70 19.00 12.00 2.80 | 587 65J @ -100C | 30 |
| RevoCor 316LT-PA | A5.22 E316LT0-1/4 | REVOCOR 316LT-PA is a gas shielded rutile flux cored wire for flat & horizontal welding capable of depositing a nominal low C-19%Cr-12%Ni-2.6%Mo weld metal for the welding of 316L grade stainless steels. Being a molybdenum bearing stainless steel provides good resistance to pitting corrosion and crevice corrosion in non-oxidising acids. | C Mn Si Cr Ni Mo | 0.037 1.13 0.67 18.16 12.17 2.5 | 520 | 38 |

Stainless Steel Flux for SAW Welding

REVOFLUX 330

REVOFLUX 330 is an agglomerated flux for welding austenitic stainless steel. It contains a well balance alloying element to maintain the stability of the ferrite in weld metal. It gives a high resistance to crack, corrosion and mechanical properties. The flux in combination with wire gives a good weldability, excellent slag detachability, and good smooth weld bead appearance. It is use in combination with stainless steel wire grade 308L, 316L, and 309L in submerged arc welding.

Classification: EN760 SA FB 2 AC

Grain Size: 10-60 Mesh

Basicity Index: 2.7

| SiO ₂ +TiO ₂ | Al ₂ O ₃ +MnO | CaO+MgO | CaF ₂ |
|------------------------------------|-------------------------------------|---------|------------------|
| 15.0 | 20.0 | 0.40 | 25.0 |

The flux must be bake at 300 ~350C for 1hours before use.

TYPICAL CHEMICAL ANALYSIS OF WELD-METAL (%)

| | C | Mn | Si | Ni | Cr | Mo |
|---------------|------|------|------|-------|-------|-----|
| Revolfil 308L | 0.03 | 1.58 | 0.65 | 9.20 | 19.20 | - |
| Revolfil 309L | 0.03 | 1.48 | 0.62 | 13.32 | 23.25 | - |
| Revolfil 316L | 0.03 | 1.70 | 0.40 | 11.20 | 19.00 | 2.5 |

TYPICAL WELD-METAL MECHANICAL PROPERTIES

| | Tensile Strength (N/mm ²) | Elongation (%) | Charpy @ -196°C |
|---------------|---------------------------------------|----------------|-----------------|
| Revolfil 308L | ≥510 | ≥30 | ≥40J |
| Revolfil 309L | ≥510 | ≥25 | ≥40J |
| Revolfil 316L | ≥510 | ≥25 | ≥40J |



Stainless Steel Consumables for GTAW, GMAW and SAW Welding

| Product Name | AWS A5.9 / EN 12072 | Applications and Characteristics | Typical Chemical Analysis % | | Typical Mechanical Properties | |
|-----------------------|-----------------------------|--|---------------------------------|--|-------------------------------|------|
| | | | C | Mn | Tensile Strength MPa | EL % |
| Revofil 307Si | | For welding on work-hardenable steels, armour plates, austenitic Mn steels and free-machining steels, e.g. 303. Also for stainless Cr steels with max. 18% Cr, e.g. in the automotive industry. Overlay welding of carbon and low-alloyed steels The corrosion resistance is similar to that of stainless the respective parent metal. | C Mn Si Cr Ni Mo | 0.070 6.76 0.7 18.8 8.94 0.12 | 600 | 41 |
| Revofil 308L | ER 308L EN 19 9 L | The weld metal is 18Cr-8Ni stainless steel. It is suitable for the welding of AISI 304, 304L, 301, 302 and 321. | C Mn Si Cr Ni | 0.024 1.65 0.42 20.1 10.3 | 580 | 42 |
| Revofil 308LSi | ER 308LSi EN 19 9 L Si | The weld metal with low carbon and higher silicon content improves the fluidity of the filler metal during welding. | C Mn Si Cr Ni | 0.025 2.25 0.78 19.80 10.50 | 590 | 41 |
| Revofil 309L | ER 309L EN 23 12 L | The weld metal contains high Ni and Cr. Suitable for the welding of dissimilar metals such as mild steel to stainless steel. | C Mn Si Cr Ni | 0.023 1.98 0.39 23.9 12.90 | 590 | 40 |
| Revofil 309LSi | ER 309LSi EN 23 12 L Si | The weld metal with low carbon and higher silicon content improves the fluidity of the filler metal during welding. | C Mn Si Cr Ni | 0.024 2.35 0.74 23.9 13.80 | 600 | 38 |
| Revofil 309LMo | (ER 309LMo) EN 23 12 2 L | The weld metal is low carbon 25Cr-12Ni-2.5Mo stainless steel. Excellent oxidization resistance at high temp. can be attained. Suitable for welding of dissimilar metals. | C Mn Si Cr Ni Mo | 0.01 1.82 0.46 23.80 13.10 2.54 | 620 | 42 |
| Revofil 310 | ER 310 EN 25 20 | Excellent corrosion resistance, heat resistance, and toughness. Suitable for the welding of steel with high hardenability, and 13Cr steel. | C Mn Si Cr Ni | 0.09 2.01 0.40 27.40 21.80 | 610 | 41 |
| Revofil 312 | ER 312 EN 29 9 | For welding of 29%Cr-9%Ni stainless cast steel. And dissimilar metal such as carbon steel or low alloy steel to stainless steel. | C Mn Si Cr Ni | 0.13 1.62 0.49 29.6 8.70 | 710 | 26 |
| Revofil 316L | ER 316L EN 19 12 3 L | For welding of 18%Cr-12%Ni-2%Mo stainless steel. Excellent creep strength and resistance to sulfuric acid due to the Mo content. | C Mn Si Cr Ni Mo | 0.02 1.91 0.42 19.10 12.60 2.6 | 560 | 40 |
| Revofil 316LSi | ER 316L EN 19 12 3 LSi | For welding of 18%Cr-12%Ni-2%Mo stainless steel. Excellent creep strength and resistance to sulfuric acid due to the Mo content. | C Mn Si Cr Ni Mo | 0.02 1.91 0.80 19.10 12.60 2.6 | 560 | 40 |



Stainless Steel Consumables for GTAW, GMAW, SAW Welding

| Product Name | AWS A5.9 / EN 12072 | Applications and Characteristics | Typical Chemical Analysis % | | Typical Mechanical Properties | |
|------------------------|---------------------------|---|---------------------------------------|---|-------------------------------|----|
| | | | Tensile Strength MPa | EL % | | |
| Revofil 317L | ER 317L EN 19 13 4 L | For welding of low carbon 19%Cr-13%Ni-3%Mo stainless steel. Excellent inter-granular corrosion resistance. | C Mn Si Cr Ni Mo | 0.02 1.76 0.40 19.60 13.70 3.60 | 570 | 42 |
| Revofil 318 | ER318 EN 19 12 3 Nb | For welding stabilised austenitic stainless steel such as AISI318. | C Mn Si Cr Ni Nb Mo | 0.04 1.85 0.40 18.9 13.0 0.80 2.53 | 640 | 37 |
| Revofil 347 | ER 347 EN 19 9 Nb | For welding of heat resistance steel. Excellent intergranular corrosion resistance due to Nb content, suitable for welding of AISI 347, 321, 304L. | C Mn Si Cr Ni Nb | 0.04 1.61 0.41 20.40 9.9 0.80 | 630 | 41 |
| Revofil 347Si | ER 347 EN 19 9 Nb Si | The weld metal is ultra low carbon and higher silicon content that improves the fluidity of the filler metal during welding. | C Mn Si Cr Ni Nb | 0.02 1.9 0.8 19.2 9.9 0.52 | 665 | 37 |
| Revofil 410NiMo | (ER 410NiMo) EN 13 4 | For welding of soft Martensitic like DIN X5 Cr Ni 13 4 or similar in hydropower equipment. Surfacing the continuous casting rolls of the steel mills. | C Mn Si Cr Ni Mo | 0.02 0.73 4.1 12.2 4.5 0.55 | 990 | 15 |
| Revofil 410 | ER 410 EN 13L | For welding of 13%Cr stainless steel such as AISI 410 and AISI 420. | C Mn Si Cr Ni | 0.14 0.20 0.13 12.16 0.30 | 530 | 25 |
| Revofil 904L | ER 385 EN 20 25 5 Cu L | For welding of stainless high-alloyed Ni-Cr-Mo-Cu grade 904L or other similar materials. Excellent resistance to stress corrosion cracking and intergranular corrosion as well as in non-oxidising acids, e.g. sulphuric, phosphoric . Also used for welding of clad steels or overlay on carbon steel. | C Mn Si Cr Ni Mo Cu | 0.020 1.8 0.4 20 25 4.5 1.5 | 550 | 35 |
| Revofil 2209 | ER2209 EN 22 9 3NL | For welding of duplex stainless steels such as UNS31803, S31500, S31200, S32304. Excellent resistance to intergranular corrosion and pitting. Good resistance to stress corrosion cracking, especially in environments containing H2S and chlorides. | C Mn Si Cr Ni Mo N | 0.012 1.23 0.48 23.28 8.57 3.2 0.14 | 750 | 25 |
| Revofil 2594 | ER2594 EN 25 9 4NL | For welding of Superduplex stainless steel such as UNS32750, S32760. It is also use to weld UNS31803 duplex where higher corrosion resistance is required. | C Mn Si Cr Ni Mo N | 0.013 0.40 0.30 25.10 9.50 4.0 0.26 | 850 | 27 |