

TASETO Welding Materials

Stainless Steel Electrodes

For Flux Cored Arc Welding

MC316L

Applicable Specification

JIS Z 3323 TS316-MM0
AWS A5.22 EC316L

● Applications and Characteristics

TASETO MC316L is a metal type flux cored wire and used for welding of Type 316 or 316L stainless steel. It makes less slag and produces a beautiful bead form. It also has good usability that cannot be obtained from bare electrodes.

As its all weld metal contains less carbon, the resistibility to intergranular corrosion in an as-welded state is excellent.

MC316L is therefore best suited for welding of equipment where solution heat treatment is impracticable.

As MC316L can be used with higher current compared to slag type flux cored wires, the rate of deposition is high, and enable efficient high speed welding.

● Notes on Usage

* Please refer "MC Wires".

* Use mixed gas (Ar+20%CO₂) as shielding gas and control the flow rate at 20L/min.

* Avoid placing the unsealed wire in humidified location.

* Perform welding in an environment where the wind velocity is no more than 1 m/sec.

● Chemical Composition of All Weld Metal (%)

	C	Si	Mn	P	S	Ni	Cr	Mo	Cu
Typical	0.033	0.39	1.66	0.026	0.004	12.47	19.31	2.35	0.01

● Mechanical Properties of All Weld Metal

	0.2% Proof Stress (MPa)	Tensile Strength (MPa)	5D Elongation (%)	Absorbed Energy (J at -196°C)
Typical	439	585	36.2	24.5, 22.6, 28.4

● Ferrite Content of All Weld Metal

* Typical Ferrite Content: 6.0% (DeLong's Diagram)

● Corrosion Resistance of All Weld Metal

* Typical Corrosion Resistance	5.58 g/m ² h (5% Sulfuric Acid Test)
	0.00046 in/month (0.13 g/m ² ·h) (65% Nitric Acid Test)
	180° bend without any defects (Copper Sulfate-Sulfuric Acid Test : PWHT650°C × 2h)

● Sizes Available and Recommended Welding Conditions(DCEP)

Size (mm)	Welding Current (A)	Arc Voltage (V)	Shielding Gas
1.2	200~300	29~38	Ar+20%CO ₂ , 20L/min
1.6	240~350	30~41	Ar+20%CO ₂ , 20L/min