

Austenite + Ferrite Type Solid Wire for Stainless Steel (MAG Welding)

GRINOX29S

■ Application

Joint welding between dissimilar steels such as middle and high alloy steel, cast steel, high-manganese steel, spring steel, tool steel)

Overlaying on the anticorrosion or heat proof parts such as stamping tool for plastics and rotor.

Underlaying for overlaying of hardened base metals.

■ Features

1. GRINOX29S is austenite + ferrite type solid wire for MAG welding.. It is designed so that the contraction stress during cooling stage becomes lower. This characteristics is suitable for underlaying for surfacing on the highly crack sensitive base metal such as alloyed steel.
2. The deposited metal has hardenability and shows good anti-shock property. Also because of high content of Cr, the deposited metal shows excellent anticorrosion and heat resistance property.

■ Welding Procedures

1. Before start welding, remove grease and blot completely from welding area.
2. Keep electric current as low as possible. Also avoid too much weaving. These help reduce welding distortion and dilution from the base metal.

■ Typical Chemical Components of the Wire (%)

C	Cr	Ni	Others
≤0.12	28.50~31.00	8.30~10.30	Mn, Si, etc.

■ Typical Mechanical Properties of the Deposited Metal as welded

Tensile Strength	N/mm ² (Kgf/mm ²)	745~853(76.0~87.0)
Yield Point	N/mm ² (Kgf/mm ²)	402(41.0)
Elongation	%	≥20
Hardness	HV	265
Hardness after Work Hardening	HV	475
Resistance to Oxidation at High Temperatures		1,000°C

■ Appropriate Welding Conditions (DC Wire + with Pulse)

Diameter (mm)	Welding Current (A)	Welding Voltage (V)	Gas Flow (ℓ/min.)
1.2	80~200	20~30	Ar+20%CO ₂ , Ar+2%O ₂
1.6	180~300	20~30	

*Minimum Quantity: 12.5Kg

Equivalent to electrode for shielded metal arc welding: GRINOX29

Equivalent to electrode for TIG welding: GRINOX29T