THS-309L (ER309L)

STAINLESS STEEL MIG WELDING WIRE

AWS A5.9 ER309L
NB/T 47018 S309L
GB/T 29713 S309L
YB/H022Cr24Ni13

APPLICATION

Welding matching stainless steel structures and dissimilar carbon steel to stainless steel. Also used for transition layers in reactor-vessel internal cladding in petrochemical equipment, and for welding martensitic or ferritic stainless steels with limited toughness.

CHARACTERISTICS

THS-309L is a low-carbon 24% Cr-13% Ni stainless steel filler wire with good high-temperature and corrosion resistance. It offers a stable arc, good bead appearance, and all-position welding capability.

PRECAUTIONS

Remove rust, oil, moisture, and other contaminants from the workpiece before welding. Use Ar + 1-3% O_2 shielding gas for MIG welding. Establish a suitable welding procedure for the actual production conditions.

WELDING POSITIONS



MECHANICAL PROPERTIES

Items	Tensile strength (MPa)	Elongation (%)
Typical results	580	35

WIRE CHEMICAL COMPOSITION (%)

Items	C	Mn	Si	Cr	Ni	Mo	P	S	Cu
Requirements	≤0.030	1.00-2.50	0.30-0.65	23.00-25.00	12.00-14.00	≤0.75	≤0.025	≤0.020	≤0.75
Typical results	0.021	1.66	0.48	24.10	13.20	0.02	0.019	0.011	0.01