

GM 312



SPECIFICATIONS : AWS/SFA 5.9 ER312 BS2901-90 312S94 DIN 8556-86 WSGX10CrNi 30.9

CHARACTERISTICS :

Getig 312 is a solid stainless steel wire which deposits a 29 % Cr / 9 % Ni austenitic / ferritic stainless steel weld metal with a ferrite content of about 40 FN. The weld metal exhibits excellent tolerance to dilution from dissimilar and difficult-to-weld base material without hot cracking, together with high strength and very good heat and oxidation resistance. Not recommended for depositing welds to be PWHT.

APPLICATIONS :

Medium and high carbon hardenable steels. For e.g. tool steels, shafts, gear teeth, free cutting steels. Dissimilar joints between stainless and high carbon steels. Buffer layer prior to hardfacing with chromium carbide deposits, surfacing of metal-to-metal wear areas, hot working tools.

COMPOSITION OF THE WIRE (RANGE) %:

C	Mn	Si	Cr	Cu	Ni	Mo	S	P
0.15 max	1.0-2.50	0.30-0.65	28.0 - 32.0	0.50 max	8.0 - 10.5	0.75 max	0.030 max	0.030 max

MECHANICAL PROPERTIES (RANGE) :

Tensile Strength MPa	Yield Stress MPa	Elongation(%) (L=4D)	Charpy V-notch impact strength (joules)	
700 - 850	560 - 700	22 - 30	20°C	50 - 90

SHIELDING GAS : Ar + 2 % O₂, 16-21 l/min

WELDING CURRENT : DC (-)

CORROSION RESISTANCE:

Good resistance to sulphurous gases at high temperature. Good resistance to wet corrosion upto approximately 300°C.

PACKING DATA :

SIZE (mm)	Wt.of the spool (Dia.of spool : 300mm layer to layer winding) KG (approx)
0.80	12.50
1.00	12.50
1.20	12.50
1.60	12.50