

PRODUCT DATA SHEET

MIG/TIG 312



MIG/TIG 312 is used for welding medium and high carbon hardenable steels, of known or unknown specifications. Combination of high alloy and high ferrite content gives extreme tolerance to dilution on a wide range of hardenable and alloy steels with minimum or no preheat. Weld deposit work hardens and gives good wear and friction resistance. Not recommended for applications operating above 300°C or for welds to be post weld heat treated.

Materials to be Welded

Medium and high carbon hardenable steels, tool steels and free cutting steels.

Classifications		
AWS	A5.9	ER 312
EN	14343-A	E29 9
EN	14343-B	SS 312

Typical Chemical Analysis			
% Carbon	0,1	% Chromium	30,0
% Manganese	1,8	% Nickel	9,3
% Silicon	0,4	% Molybdenum	0,1
% Sulphur	0,005	% Copper	0,1
% Phosphorous	0,02		

Typical Mechanical Properties (All weld metal)			
	MIG		TIG
	Argoshield® 5	Stainshield® Plus	Argon
Tensile Strength	813 MPa	789 MPa	790 MPa
0,2% Proof Stress	628 MPa	638 MPa	640 MPa
% Elongation on 4d	25	10	21
% Reduction of Area	31	10	35
Impact Energy +20°C	-	27 J	>50 J
Hardness	270 HV	300 HV	275 HV
Microstructure	Duplex austenite-ferrite microstructure with approximately 40% ferrite		

Packing Data				
MIG (DC+)				
Diameter (mm)	Current		Pack Mass (kg)	Item Number
	Amps (A)	Volts (V)		
1,2	220	26	15,0	W033060

PRODUCT DATA SHEET

Packing Data TIG (DC-)

Diameter (mm)	Current		Pack Mass (kg)	Item Number
	Amps (A)	Volts (V)		
1,6	120	14	5,0	W030437
2,0	120	14	5,0	W030438
2,4	120	14	5,0	W030439

Suggested gas for welding: Argoshield® 5, Stainshield®, Stainshield® Plus (MIG), Argon (TIG)

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