

WELDTOOL DESIGNATION AND DESCRIPTION	GTAW SOLID	10 MOI BARE WE RON BASI	LDING WI	RE	ISO 900 AS 910 Revision	0	DATA SHEET 5821
CROSS-REFERENCE CONFORMANCE SPECIFICATIONS	AMS 5821 12Cr Ferrite Controlled Grade UNS \$41081 Available in HQ-GRADE 51410 MOD (See AMS 5776 for reference) USWC 5821 (V)						
METALLURGICAL BACKGROUND INFORMATION	WELDTOOL® TECHNOLOGIES, INC is produced by vacuum induction melting and remelting techniques. The final wire is manufactured by special lubricant-free, roller-die forming followed by surface abrasion and cleaning processes. These manufacturing processes ensures consistent metallurgical integrity of the alloy and surface physical purity of the welding wire is maintained. WELDTOOL® TECHNOLOGIES, INC is a higher carbon version of AMS 5776, producing a martensitic stainless deposit. Annealing after welding will promote ductility to the weldment. The filler metal is used to weld alloys of similar composition.						
MATERIALS TO BE WELDED AND APPLICATIONS	AMS 5612, 5613, 5504, 5591, 5350, 5351. ASTM A743 Grade CA6NM, CA15M, CA-40. Preheat base metal to 345° - 400°F and PWHT at 1202° - 1400°F. Uses include steam tubine buckets, bucket covers, blades, compressor components in gas turbines. Used for fabrication of catalytic converters.						
WIRE CHEMISTRY WT%	Carbon Manganese Silicon Sulfur Phosphorus Chromium Nickel	0.11 - - - - 11.5	0.15 0.60 0.50 0.025 0.025 12.50 0.75	Molybdenu Aluminum Nitrogen Copper Tin Iron		0.20 0.05 0.08 0.50 0.05 Balan	ce
WELD PROPERTIES	Melting Point: 2790°F Response to Heat Treat: 39-44HRC			Density: 7.7 gm/cc			
SIZES AND FORMS AVAILABLE PACKAGING				SPOOLED WIRE Precision layer wound, with controlled cast and helix 12" (300mm) diameter spools standard 8" (200mm), 4" (100mm) and proprietary spool sizes on request. Wide range of diameters and spool weights.			
DFARS Compliant	atmospheric contan	nination and p	rolonged she	If-life.	W	ww.we	ldtool.com