UNITED STATES WELDING CORPORATION

USW ALLOY DESIGNATION AND BRIEF DESCRIPTION	**8-1-1 Ti** **GTAW SOLID BARE WELDING WIRE TITANIUM BASE**	ISO 9001 AS 9100 Revision A	**DATA SHEET** 4955

CROSS-REFERENCE CONFORMANCE SPECIFICATIONS

AMS 4955 — 8 Al 1 Mo 1 V Ti
UNS R54810

METALLURGICAL BACKGROUND INFORMATION

Alloy 8-1-1 Ti is a solid welding wire produced conventionally and then surface cleaned to remove standard drawing lubricants.

8-1-1 Ti is a near alpha, duplex, higher temperature alloy for use up to about 842° F

MATERIALS TO BE WELDED APPLICATION AND ADVICE

AMS 4972, 4933, 4973, 4915, 4916.

Pure argon gas shielding and ultra clean weldment conditions are required.
A trailing gas shield and underside shielding is necessary..

WIRE CHEMISTRY WT%

Aluminum	7.35	8.35	Nitrogen	-	0.050 (500ppm)
Molybdenum	0.75	1.25	Hydrogen	-	0.010 (100ppm)
Vanadium	0.75	1.25	Yttrium		0.005 (50ppm)
Iron	-	0.30	Other elements	-	0.10 each
Oxygen	-	0.12	Other elements	-	0.40 total
Carbon	-	0.08	Titanium		Balance

WELD PROPERTIES

Fair weldability
Bare metal hardness Rc 36
Beta transus 1900° F
Density: 4.38 gr/cc

SIZES AND FORMS OF SUPPLY

STRAIGHT LENGTHS	SPOOLED WIRE
5 lbs. (2.2kg) packs 36" (914mm) lengths Flag tagged for traceability. (Double tagging and other lengths on request) Wide range of diameters.	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.

PACKAGING

Sealed, air-evacuated, argon filled Vapor Barrier containers with desiccants ensure full protection from atmospheric contamination and prolonged shelf-life.

DFARS Compliant

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