



UNITED STATES WELDING CORPORATION

USW ALLOY DESIGNATION AND DESCRIPTION	TURBALOY® 605 HQ-GRADE GTAW SOLID BARE WELDING WIRE COBALT BASE		ISSUED JANUARY 2007		DATA SHEET 5796 (4)
			REVISION NO. A		
CROSS-REFERENCE CONFORMANCE SPECIFICATIONS	MSRR 9500/23 AMS 5796 UNS R30605 L 605 52Co 20Cr 10Ni 15W		USWC 5796 (A) Haynes 25 MSRR 7091 OMAT 3/64 A		
METALLURGICAL BACKGROUND INFORMATION	TURBALOY® 605 undergoes a series of proprietary abrading and cleaning processes to remove all surface contaminants. These manufacturing processes ensure a consistent ultra-clean weld wire surface. TURBALOY® 605 is a Co-Cr-Ni-W high temperature, high wear resistant alloy used to weld alloys of similar composition.				
MATERIALS TO BE WELDED AND APPLICATIONS	AMS 5759, 5537		PWA 1032	GE B50TF1	
	Repair welding of cobalt-base gas turbine components; blades, combustion chambers, after-burner parts, rings. MSRR 7052, 7053, 7091				
	BS - HR40 Pure argon gas shielding and ultra clean weldment conditions are required.				
WIRE CHEMISTRY WT%	Carbon	0.05	0.15	Chromium	19.00 21.00
	Manganese	1.00	2.00	Nickel	9.00 11.00
	Silicon	-	1.00	Tungsten	14.00 16.00
	Sulfur	-	0.03	Iron	- 3.00
	Phosphorus	-	0.04	Cobalt	Balance
WELD PROPERTIES	Melting range: 2425° - 2570°F		Density: 9.1 gm/cc		
	Hardness: 96 HRB				
SIZES AND FORMS AVAILABLE	STRAIGHT LENGTHS		SPOOLED WIRE		
	5 lb. (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 polyethylene envelopes. (Desiccants optional)				

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