



UNITED STATES WELDING CORPORATION

USW ALLOY DESIGNATION AND DESCRIPTION	TURBALOY® X HQ-GRADE GTAW SOLID BARE WELDING WIRE NICKEL BASE		ISSUED JANUARY 2007		DATA SHEET 5798 (6)	
			REVISION NO. A			
CROSS-REFERENCE CONFORMANCE SPECIFICATIONS	MSRR 9500/215 AMS 5798 UNS N06002 Hastelloy X		47.5Ni 22Cr 1.5Co 9.0Mo 0.60W 18.5Fe USWC 5798A OMAT 3/165 A			
METALLURGICAL BACKGROUND INFORMATION	<p>TURBALOY® X 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.</p> <p>TURBALOY® X is a Ni-Cr-Fe alloy having exceptional oxidation resistance and good weldability.</p>					
MATERIALS TO BE WELDED AND APPLICATIONS	Turbine engine tailpipes, combustors and burner-can overhaul, afterburner components, NGV and blade repair, cabin heater ducting and heat exchanger repair, turbine exhaust components. MSRR 7180 AMS 5754, 5536, 5587, 5588, 5390. ASTM B572, B435					
WIRE CHEMISTRY WT%	Carbon	0.05	0.15	Cobalt	0.50	2.50
	Manganese	-	1.00	Molybdenum	8.00	10.00
	Silicon	-	1.00	Tungsten	0.20	1.00
	Sulfur	-	0.030	Iron	17.00	20.00
	Phosphorus	-	0.040	Boron	-	0.010
	Chromium	20.50	23.00	Nickel		Balance
WELD PROPERTIES	Hardness annealed: 75 - 85 HRB		Density: 8.22 gm/cc			
	Rapid cooled: 89 - 92 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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