

UNITED STATES WELDING CORPORATION

USW ALLOY DESIGNATION AND DESCRIPTION	TURBALOY® 502 MC-GRADE GTAW SOLID BARE WELDING WIRE IRON BASE	ISO 9001 AS 9100 Revision A	DATA SHEET 6466
CROSS-REFERENCE CONFORMANCE SPECIFICATIONS	AMS 6466 5.2Cr 0.55Mo 0.10C UNS S50280 (BS2901 A34) AWS A5.28 Class ER80S-B9		
METALLURGICAL BACKGROUND INFORMATION	TURBALOY® 502 is a moderately corrosion resistant steel. The final wire is manufactured by special lubricant-free, roller-die forming followed by surface abrasion and cleaning processes. These manufacturing processes ensure consistent metallurgical integrity of the alloy with regard to control of trace elements and physical purity of the weld wire surface. TURBALOY® 502 is used for welding material of similar composition, usually in the form of piping and tubing. The alloy is an air-hardening material, and therefore, when welding with this filler metal, preheating and postweld heat treatment are required.		
MATERIALS TO BE WELDED AND APPLICATIONS	ASTM A537, A155, A335, (P5), A199 (T5), A213, A217, (C5), A387/5, UNS 50100. Pressure vessel steam systems. Steam turbine components. Oil refinery components.		
WIRE CHEMISTRY WT%	Manganese - 0.60 Nicke	bdenum 0.45 0.6 per - 0.3 Bal	0 5 5 ance
WELD PROPERTIES	Tensile Strength: 80,000 PSI Min. Yield Strength: 68,000 PSI Min. Elongation: 17% Min. (PWHT)		
SIZES AND FORMS AVAILABLE PACKAGING	36" (914mm) lengths Flag tagged for traceability. (Double tagging and other lengths on request) Wide range of diameters. Sealed, air-evacuated, argon purged Vapor Barrier e nv	Precision layer wound, with controlled cast and helix 12" (300mm) diameter spools standard 8" (200mm), 4" (100mm) and proprietary spool sizes and other lengths on request) on request. Wide range of diameters and spool weights. ated, argon purged Vapor Barrier e nvelopes with desiccants ensure full protection from	
DFARS Compliant	atmospheric contamination and prolonged shelf-life.	WALKE DOWN	eldingcorp.com