

UNITED STATES WELDING CORPORATION

USW ALLOY DESIGNATION AND DESCRIPTION		RBALOY MC-GRADE ID BARE WEI IRON BASI	DING WIR	LE	ISO 900 AS 9100 Revision	0	DATA SHEET 5782
CROSS-REFERENCE CONFORMANCE SPECIFICATIONS	AMS 5782 20.5Cr 9.0Ni 0.50Mo 1.5W 1.2Cb 0.20Ti UNS S63197 349SS MSRR 9500/211 19-9W Mo (Similar to 19.9DL AISI 651 and 19-9DX AISI 652). Available in HQ-GRADE						
METALLURGICAL BACKGROUND INFORMATION	TURBALOY® 349 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 with regard to control of trace elements and physical purity of the welding wire surface. TURBALOY® 349 is a high strength stainless alloy for use at elevated temperatures and is used for welding alloys of similar composition for gas turbine component manufacture and overhaul.						
MATERIALS TO BE WELDED AND APPLICATIONS	AISI 651, 652. AMS 5720, 5721, 5722, 5526, 5527, 5579, 5723, 5724, 5538, 5539, 5369. PWHT 1650-1800°F helps to minimize sensitivity to intergranular corrosion. GM turbine buckets, tailpipes, manifolds, superchargers.						
WIRE CHEMISTRY WT%	Carbon Manganese Silicon Sulfur Phosphorus Chromium Nickel	0.07 1.00 0.30 - - 19.00 8.00	0.13 2.00 0.65 0.10 0.15 22.00 9.50	Molybdenu Tungsten Columbium Titanium Copper Tantalum Iron	1.25	0.65 1.75 1.40 0.30 0.50 0.050 Balan	
WELD PROPERTIES	Melting range: 2500° - 2600 ° F Density: 7.93 gm/cc Hardness: 95 - 107 HRB depending on heat treatment.						
SIZES AND FORMS AVAILABLE	STRAIGHT LENGTHS 5 lb. (2.2kg) packs 36" (914mm) lengths Flag tagged for traceability. (Double tagging and other lengths on request) Wide range of diameters.			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.			
PACKAGING	Sealed, air-evacuated, argon purged Vapor Barrier e nvelopes with desiccants ensure full protection from atmospheric contamination and prolonged shelf-life.						
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