

## UNITED STATES WELDING CORPORATION

CROSS-REFERENCE CONFORMANCE SPECIFICATIONS  MSRR 7049 AMS 5789 USWC 5789 (A)  TURBALOY® 31 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® 31 is a Co-Cr-Ni-W wear resisting, high temperature alloy used for welding base more of similar compositions.	etal
METALLURGICAL BACKGROUND  all surface contaminants. These manufacturing processes ensure a consistent ultra-clean weld wire surface.  TURBALOY® 31 is a Co-Cr-Ni-W wear resisting, high temperature alloy used for welding base me	etal
MATERIALS TO BE WELDED AND APPLICATIONS  AMS 5382 MSRR 7049/7122, 7185 PWA A648 UNS R30031 ASTM A567GR2  Repair welding of recycled high temperature gas turbine blades and vanes. Pure argon gas shielding and clean weldment conditions are required.	
WIRE CHEMISTRY WT%  Carbon 0.45 0.55 Chromium 24.50 26.50  Manganese - 1.00 Nickel 9.50 11.50  Silicon - 1.00 Tungsten 7.00 8.00  Sulfur - 0.04 Iron - 2.00  Phosphorus - 0.04 Cobalt Balance	
WELD PROPERTIES  As cast hardness: 30-35 HRC As cast hardness: 90 HRB at 930°F As cast hardness: 70 HRB at 1650°F  Density: 7.82 gm/cc	
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 an 12" (300mm) diameter spools standard 8" (200mm), 4" (100mm) and proprietary spoon on request. Wide range of diameters and spool weights.	
PACKAGING Sealed polyethylene envelopes. (Desiccants optional)	