UNITED STATES WELDING CORPORATION

USW ALLOY DESIGNATION AND DESCRIPTION	**TURBALOY® 455** **MC-GRADE** **GTAW SOLID BARE WELDING WIRE** **IRON BASE**	**ISSUED** JANUARY 2007 REVISION NO. A	**DATA SHEET** 5617 (4)

CROSS-REFERENCE CONFORMANCE SPECIFICATIONS

AMS 5617 GRADE 2
UNS S45500
USWC 5617 (V)

12 Cr 8.5 Ni 2 Cu 1.1 Ti
XM-16

METALLURGICAL BACKGROUND INFORMATION

TURBALOY® 455 wire is manufactured by special lubricant-free, roller-die forming , followed by surface abrasion and cleaning processes.
These manufacturing processes ensure integrity of the alloy and surface physical purity of the welding wire.

TURBALOY® 455 is a martensitic age-hardenable stainless steel. It should be considered where simplicity of heat treatment, ease of fabrication, high strength and corrosion resistance are required in combination.

MATERIALS TO BE WELDED AND APPLICATIONS

AMS 5578, 5672, 5860
ASTM A313(XM-16), A564, A693, A705
MIL-S-83311

Pressure Vessels & Bottles

WIRE CHEMISTRY WT%

Carbon	-	0.010	Nickel	7.50	9.50
Manganese	-	0.50	Molybdenum	-	0.50
Silicon	-	0.20	Columbium	-	0.50
Sulfur	-	0.010	Copper	1.50	2.50
Phosphorus	-	0.010	Titanium	1.00	1.35
Chromium	11.00	12.50	Nitrogen	-	.010
Iron	-	Balance			

WELD PROPERTIES

Hardness annealed: 31 HRC
Maximum hardness: 49 HRC
Excellent weldability

Density: 7.76 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 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.

DISTRIBUTED BY:

3579 HIGHWAY 50 EAST #104 □ CARSON CITY, NEVADA 89701-2826
775/883-7878 □ 800/423-5964 □ FAX: 775/883-7776