



# UNITED STATES WELDING CORPORATION

<p align="center"><b>USW ALLOY DESIGNATION AND DESCRIPTION</b></p>	<p align="center"><b>TURBALOY® 355</b> MC-GRADE GTAW SOLID BARE WELDING WIRE IRON BASE</p>	<p align="center"><b>ISSUED</b> JANUARY 2007</p>	<p align="center"><b>DATA SHEET</b>  <b>5780</b> (16)</p>																																				
<p align="center"><b>CROSS-REFERENCE CONFORMANCE SPECIFICATIONS</b></p>	<table border="0"> <tr> <td>AMS 5780</td> <td>15.5Cr-4.5Ni-2.9Mo-0.1ON</td> </tr> <tr> <td>UNS S35500</td> <td>USWC 5780 (V)</td> </tr> <tr> <td>AM 355</td> <td>AISI 634</td> </tr> <tr> <td>MSRR 9500/210</td> <td></td> </tr> </table>			AMS 5780	15.5Cr-4.5Ni-2.9Mo-0.1ON	UNS S35500	USWC 5780 (V)	AM 355	AISI 634	MSRR 9500/210																													
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<p align="center"><b>METALLURGICAL BACKGROUND INFORMATION</b></p>	<p>TURBALOY® 355 is a corrosion and heat resistant steel. The 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 purity of the welding wire surface.</p> <p>TURBALOY® 355 is a hardenable Cr-Ni-Mo nitrogen strengthened stainless alloy giving high strength at moderate temperature. The structure can be austenitic or martensitic depending on heat treatment and/or quenching temperature.</p> <p>TURBALOY® 355 is used to weld alloys of similar composition.</p>																																						
<p align="center"><b>MATERIALS TO BE WELDED AND APPLICATIONS</b></p>	<p>AMS 5743, 5744, 5368, 5359, 5549, 5547. ASTM A564, A693, 579, 705.</p> <p>Gas turbine compressor components - rotors, discs, blades. PWHT at 1740°F produces optimum mechanical properties and as necessary for subsequent age-hardening treatment.</p>																																						
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<p align="center"><b>PACKAGING</b></p>	<p>Sealed, air-evacuated, argon purged Vapor Barrier envelopes with desiccants ensure full protection from atmospheric contamination and prolonged shelf-life.</p>																																						

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