

## DESCRIPTION

Executive 80S-B6 is designed to weld 5Cr – ½ Mo type steels using MIG or TIG welding processes where high temperature service and creep resistance is important. The alloy content of the wire produces weld metal that matches the base material and maintains mechanical properties after post-weld heat treat.

Executive 80S-B6 filler metal is produced using high quality raw materials and tightly controlled chemistry to provide top quality, exceptionally clean wires that deliver smooth feedability and the results fabricators demand.

## APPLICATIONS & FEATURES

Executive 80S-B6 is used to weld 5Cr – ½ Mo type steels incorporated in heat exchangers, boilers, piping and pressure vessels for service temperature up to 600°C. Typical material grades include ASTM A387-Gr 5, A335-Gr 5 and A182-F5/5A.

## TYPICAL WIRE CHEMISTRY & MECHANICAL PROPERTIES

C	Mn	Si	Cr	Mo	P	S	Cr
0.089	0.57	0.35	4.90	0.52	0.016	0.003	4.90

**Tensile Strength:** 89,900 PSI min      **Yield Strength:** 72,500 PSI min      **Elongation:** 25%

**Charpy V-Notch:**

\*PWHT 1 hour @ 1375°F/ 745°C

## TYPICAL WELDING PARAMETERS

Process	Diameter	Voltage	Amperage	Speed (in/min)	Shielding Gas / Flux	
<b>GMAW</b> - Short	.035"	14-20	90-160	100	100% CO <sub>2</sub>	
	.045"	16-20	120-200	150	75% Ar / 25% CO <sub>2</sub>	
	- Spray	.035"	25-28	180-230	125	98% Ar / 2% O <sub>2</sub>
		.045"	25-30	250-350	150	75% Ar / 25% CO <sub>2</sub>
<b>GTAW</b>	.093"	Direct Current; Electrode -			100% Ar	
	.125"					

## STANDARD PACKAGING

<b>GMAW</b> (MIG)	33-lb plastic spool	1,980-lb pallet
<b>GTAW</b> (TIG)	10-lb plastic tube	40-lb box

## CLASSIFICATION

AWS/SFA 5.28, Class **ER80S-B6**

