Select 70S-6

Description:

Select 70S-6 is a premium carbon steel, "MIG wire", electrode intended for welding carbon steels with a yield strength range of 55,000-70,000 psi. This product is well suited for steels containing medium to high levels of mill scale. The increased levels of manganese and silicon, compared to **Select 70S-3**, allow the use of this electrode on mild amounts of contaminants as well. The copper coating on **Select 70S-6** is well controlled at a consistent level and promotes excellent feeding characteristics. Recommended shielding gases are 75-95% argon/balance carbon dioxide, 95-98% argon/balance oxygen, and 100% carbon dioxide. Flow rates should be 30-50 cfh.

Classification:

- ER70S-6 per AWS/ANSI A5.18, ASME SFA 5.18

Characteristics:

Select 70S-6 is a premium solid electrode, or "MIG wire", which displays excellent feedability and welder appeal. The arc transfer is extremely stable and consistent; the electrode can be fed over long conduit distances and at high wire feed speeds without problems. The copper coating displays good adherence and resists flaking, leading to trouble-free feeding and clean liners. This reduces down time and improves productivity. Excellent control of wire composition promotes good welding performance and reliable mechanical properties from one lot to the next. All position welding maybe accomplished using the short circuit (short arc) or pulse arc transfer.

Applications:

Select 70S-6 is well suited for those applications on carbon steel with a yield strength range of 55,000-70,000 psi, where medium to high levels of mill scale are present. It is also a good selection for weldments requiring better tie-in and wetting than possible with a 70S-3 electrode. **Select 70S-6** is a superb choice for welding pressure vessels, structural steel, steel buildings, pipe, and automotive repair.

Typical Wire Composition:

Sheilding Gas	C	Mn	Si	P	S	Cu
CO_2	.08	1.53	.88	.009	.010	.18

Typical Mechanical Properties:

UTS(psi)	YS(psi)	% Elong.	CVN(ft•lbf)@ -20ºF
80,900	68,100	28	44

Welding Parameters:

Typical Spray Arc Parameters (Argon-2% O_2):

	Optimum			Range			
Diam.(in.)	Amperage	WFS	Voltage	Amperage	WFS	Voltage	ESO
.035	200	475	26	180-240	400-560	24-27	½"-¾"
.045	300	350	27	260-335	300-500	25-30	½"-1"
.052	325	310	28	280-400	270-400	26-32	½"-1"
1/16	340	200	28	290-400	175-280	26-37	½"-1"

Optimum Short Arc Parameters (Argon-25% CO_2):

	Amperage	WFS	Voltage	ESO
.035	130	245	17	3/8"
.045	160	150	18	3/8"
.052	165	140	18	3/8"

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