

Select 85-B2

Description:

Select 85-B2 is intended for single and multiple pass welding of certain chromium-molybdenum steels, plate and pipe requiring 1 1/4% chrome and 1/2% molybdenum in the weld deposit. The basic slag limits welding to horizontal fillets and the flat position. CO₂ shielding gas is recommended.

Classification:

- E80T5-B2C per AWS A5.29, ASME SFA 5.29

Characteristics:

- Excellent mechanical properties with basic slag.
- Better CVN toughness properties than rutile-slag electrodes
- Low weld metal hydrogen

Applications:

Select 85-B2 is a good choice for welding steels such as ASTM A387 Gr 11 plate and A335 Gr P11 pipe. These steels are used in high temperature applications requiring creep resistance. The basic slag imparts better CVN toughness than rutile slag electrodes when welding these steels, which are used in the construction of boilers, heat exchangers and pressure vessels.

Typical Mechanical Properties

	SR 1 Hr. At 1275° F
Ultimate Tensile Strength (psi)	94,000
Yield Strength (psi)	82,000
Percent Elongation	25
CVN (ft lb f) @ -20 F	40

Typical Deposit Composition

<u>Wt%</u>	<u>C</u>	<u>Cr</u>	<u>Mo</u>	<u>Mn</u>	<u>Si</u>	<u>P</u>	<u>S</u>
	.06	1.25	.52	.70	.40	.010	.010

Suggested Welding Parameters:

<u>Diameter</u>	<u>Amperage</u>	<u>Optimum</u>		<u>Range</u>	
		<u>Voltage</u>	<u>WFS</u>	<u>Amperage</u>	<u>Voltage</u>
3/32"	400	28	185	350-550	26-34
5/64"	370	28	250	280-500	26-33
1/16"	300	29	320	250-450	26-34
.045"	250	28	380	120-320	22-31

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Notice: The results reported are based upon testing of the product under controlled laboratory conditions in accordance with American Welding Society Standards. Actual use of the product may produce different results due to varying conditions. An example of such conditions would be electrode size, plate chemistry, environment, weldment design, fabrication methods, welding procedure and service requirements. Thus the results are not guarantees for use in the field. The manufacturer disclaims any warranty of merchantability or fitness for any particular purpose with respect to its products.