

Select 105-D2

Description:

Select 105-D2 is a low alloy steel electrode with a basic slag system used to weld certain manganese-molybdenum steels and castings. This electrode is intended for single and multiple pass welding in horizontal fillets and the flat position with carbon dioxide shielding gas.

Classification:

- E100T5-D2CM per AWS A5.29, ASME SFA 5.29

Characteristics:

- Excellent low temperature CVN toughness.
- Basic slag provides weld metal with low levels of diffusible hydrogen.
- Weld deposit is suited well to match composition of manganese-molybdenum castings.
- An excellent replacement for E10018-D2 covered electrodes

Applications:

Select 105-D2 produces deposited weld metal of approximately 2 % manganese and 0.50% molybdenum, used primarily to weld steels such as ASTM A302 GrB and castings such as ASTM A49, A291 and A735.

Typical Mechanical Properties:

	SR 1 Hr @ 1150° F
Ultimate Tensile Strength (psi)	102,600
Yield Strength (psi)	90,700
Percent Elongation	24
CVN (ft • lb f) @ -40 F	30

Typical Deposit Composition:

<u>Wt %</u>	<u>C</u>	<u>Mn</u>	<u>Mo</u>	<u>Si</u>	<u>P</u>	<u>S</u>
	.05	2.06	.48	.45	.010	.010

Suggested Welding Parameters:

<u>Diameter</u>	<u>Optimum</u>			<u>Range</u>	
	<u>Amperage</u>	<u>Voltage</u>	<u>WFS</u>	<u>Amperage</u>	<u>Voltage</u>
1/8"	475	28	115	375-650	26-36
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.