



## Select EM12KS

### Description:

Select EM12KS is a metal cored, carbon steel electrode for submerged arc welding. It is intended for single and multiple pass welding of carbon, and certain low alloy, steels in the flat and horizontal fillet positions. This electrode should be used for submerged arc welding only.

### Classification:

- EC1 per AWS A5.17, SFA 5.17.

### Characteristics:

Select EM12KS is designed to produce a weld deposit chemistry equivalent to that produced by solid wire, EM12K electrodes. The cored wire design results in higher deposition rates than solid wire when run at the same current level.

Select EM12KS allows for better control of bead penetration than solid wire. The penetration pattern for a cored electrode is broader and slightly shallower, reducing the tendency for burn through on root passes or poorly fit up joints.

### Applications:

Select EM12KS is ideal for those applications involving the welding of structural carbon steels such as A36, A285, A515, and A516. It may be used with neutral or active fluxes and may be substituted anywhere a solid wire, EM12K electrode is used.

### Typical Deposit Chemistry

<u>Wt%</u>	<u>C</u>	<u>Mn</u>	<u>P</u>	<u>S</u>	<u>Si</u>
	.10	1.05	.010	.010	.35

### Recommended Welding Parameters:

	<u>Amps</u>	<u>Volts</u>	<u>Wire Feed Speed (ipm)</u>	<u>ESO (in)</u>
5/64"	250	26-27	90	3/4" - 1 1/4"
	350	29-30	160	
	500	32-33	290	
3/32"	275	28-29	80	1" - 1 1/4"
	450	32-33	155	
	600	37-38	245	
1/8"	300	28-29	45	1 - 1 1/4"
	550	32-33	105	
	750	37-38	180	
5/32"	425	31-32	45	1 1/4" - 1 1/2"
	700	37-38	105	
	900	31-42	180	

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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. Select-Arc disclaims any warranty of merchantability or fitness for any particular purpose with respect to its products.