



Smoothcor 120T5-K4

Classification: AWS A5.29/ASME SFA 5.29 E120T5-K4C-H4

Description: Smoothcor 120T5-K4 is a low alloy steel flux cored, gas shielded electrode for single and multiple pass welding of HSLA steels requiring 120,000 psi tensile strength. It is intended for welding in horizontal fillets and flat position using 100% CO₂ shielding gas. The arc transfer is globular and the bead shape is convex. Smoothcor 120T5-K4 is a good selection for welding steels such as HY-100 and ASTN A514. The low diffusible hydrogen levels minimize HAZ cracking and facilitate welding in various high strength steels. The materials are found in mining machinery, cranes and construction equipment. Smoothcor 120T5-K4 meets the same requirements as 12018M electrodes.

Typical Weld Deposit Chemistry (CO₂)

	C	Mn	P	S	Si	Ni	Cr	Mo
CO ₂	.04	1.90	.01	.01	.42	2.27	.57	.60

Typical Mechanical Properties (CO₂)

Tensile Strength	132,100 psi
Yield Strength	116,000 psi
Elongation	15%
CVN (ft•lb f) @ -60°F	33

Typical Welding Parameters – Carbon & Low Alloy – Flat & Horizontal - CO₂ – DCEP

Dia.	Operating Range			Optimum			
	Amps	WFS (ipm)	Volts	Amps	WFS (ipm)	Volts	ESO
.045"	130-300	160-670	21-32	250	450	28	½ - 1"
1/16"	150-400	130-500	22-34	330	330	29	½"-1"

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.