



# Smoothcor 70T-1

## Classifications:

E70T-1C, E70T-9C per AWS A5.20, ASME SFA 5.20

## Approvals:

ABS E70T-1

## Description:

**Smoothcor 70T-1** is an E70T-1C electrode with a unique slag system which allows multiple weld beads to be stacked in a horizontal fillet with a minimum of "roll" or convexity. A carbon steel electrode intended for single and multiple pass welding in flat and horizontal fillet positions, **Smoothcor 70T-1** is designed for use with carbon dioxide gas shielding.

## Characteristics:

**Smoothcor 70T-1** has an extremely smooth welding arc over a broad range of amperage and voltage with very low spatter. Exacting slag characteristics facilitate a flat bead profile and stacking in multipass fillets and the slag is removed very easily.

## Applications:

**Smoothcor 70T-1** has all the good attributes of a standard E70T-1, but also has a tremendous improvement in bead profile. The bead geometry of **Smoothcor 70T-1** is much flatter, with minimal roll, or better tie-in, at the toe of the fillet. Also, it is much easier to "stack" weld beads with **Smoothcor 70T-1** when building up large horizontal fillets. This is an excellent electrode for welding plates such as ASTM A36, A285, A515 and A516, as found in the fabrication of earthmoving equipment, mining machinery, structural steel and railcar fabrication.

**Shielding Gas:** 100% CO<sub>2</sub>, 35-50 cfm

**Welding Positions:** Flat and Horizontal

<b>Typical Mechanical Properties:</b>	<b>CO<sub>2</sub> Gas</b>
<b>Ultimate Tensile Strength (psi)</b>	88,600
<b>Yield Strength (psi)</b>	73,000
<b>Percent Elongation</b>	24
<b>CVN (ft•lb f)</b>	@ 0°F 34
	@ -20°F 29

## Typical Deposit Composition:

Wt%	C	Mn	Si	P	S
CO <sub>2</sub>	0.06	1.56	0.58	.006	.010

## Typical Welding Parameters :

Diameter	Amperage	Voltage	Optimum		Range		
			WFS (in/min)	ESO	Amperage	Voltage	WFS (in/min)
1/8"	500	29	110	¾-1¼"	375-725	28-37	65-175
7/64"	475	29	140	¾-1¼"	350-700	27-36	80-250
3/32"	425	29	180	¾-1"	300-550	26-34	110-270
5/64"	390	29	250	¾-1"	280-430	26-33	140-300
1/16"	330	29	330	½-1"	150-400	24-34	130-500

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.