



Smoothcor 71T-1/T-12MJ

CLASSIFICATIONS: E71T-1C, E71T-1M, E71T-9C, E71T-9M, E71T-12C, E71T-12MJ per AWS A5.20, ASME SFA 5.20

APPLICATIONS: Smoothcor 71T-1/T-12MJ is designed for single and multiple pass welding of carbon steels in all positions. There are numerous applications for which Smoothcor 71T-1/T-12MJ is well suited, many of them previously reserved for EXX18 covered electrodes. This electrode excels in welding where requirements are stringent, such as offshore platforms and pipe systems, pressure vessels, oil and gas pipelines, petrochemical pipelines, structural steel, bridge fabrication and many others.

DIAMETERS: .035", .045", .052", 1/16", 5/64"

SHIELDING GAS: 100% CO₂, 75-80% Ar / balance CO₂, 35-50 cfh

WELDING POSITIONS: All positions

CHARACTERISTICS:

Excellent CVN toughness.
 Low fume generation rates and diffusible hydrogen levels.
 Exceptional resistance to moisture pickup.
 Easily exceeds all "recommended requirements."

TYPICAL MECHANICAL PROPERTIES		
	CO ₂	75% Ar/ 25% CO ₂
Ultimate Tensile Strength (psi)	81,500	88,000
Yield Strength (psi)	66,700	76,000
Percent Elongation	28	28
CVN (ft-lb f) @ 0° F	110	101
@ -20° F	95	85
@ -50° F	37	40

TYPICAL DEPOSIT COMPOSITION						
Wt%	C	Mn	P	S	Si	Ni
CO ₂	.06	1.30	.009	.009	.42	.39
75 Ar/25 CO ₂	.06	1.51	.009	.009	.47	.41

With CO₂ shielding gas. For 75Ar/25CO₂ decrease voltage by 1 to 1.5 volts.

RECOMMENDED WELDING PARAMETERS *						
Diam.	Position	Optimum			Range	
		Amps	Volts	WFS	Amps	Volts
5/64"	Flat	390	29	250	240-430	26-33
	Overhead	250	26	135	240-300	25-28
	Vertical Up	250	25	135	240-290	24-26
1/16"	Flat	350	29	300	150-400	22-34
	Overhead	225	26	160	150-310	22-28
	Vertical Up	225	25	160	150-280	22-27
.052"	Flat	300	28	360	100-330	19-32
	Overhead	225	26	245	150-310	21-28
	Vertical Up	225	25	245	150-280	21-27
.045"	Flat	250	28	282	100-300	21-32
	Overhead	200	26	265	150-280	21-29
	Vertical Up	200	25	265	100-230	21-28
.035"	Flat	175	26	511	100-250	21-30
	Overhead	150	24	490	100-175	21-26
	Vertical Up	150	24	490	100-175	21-26

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.