

Flux Cored Stainless Steel Electrodes (Gas Shielded)

DM2553T-1

Classification: E2553TX-X
Weld Process: Gas Metal Arc
AWS A5.22 ASME SFA 5.22

Characteristics

Has improved resistance to pitting corrosion and stress corrosion cracking. This alloy is in one of the family of duplex stainless steel alloys.

Application

This electrode is used to join duplex stainless steel base material containing approximately 25% chromium. This alloy is in one of the family of duplex stainless steel alloys. Has improved resistance to pitting corrosion and stress corrosion cracking.

Shielding Gas

75% argon / 25% CO₂ (or nearest equivalent) shielding gas; however, straight CO₂ may also be used. The 75/25 mixture will produce a smoother arc with virtually no spatter and slightly higher yield and tensile strengths than CO₂. The mechanical properties and deposit analyses will meet AWS A5.22 specifications with either gas.

AWS Chemical Composition Requirements

Element	C	Cr	Ni	Mo	Mn	Si	P	S	Cu	N
AWS Spec.	0.04 max	24.0 - 27.0	8.5 - 10.5	2.9 - 3.9	0.50 - 1.5	0.75 max	0.04 max	0.03 max	1.5 - 2.5	0.10 - 0.25

Deposited Chemical Composition (%) (Typical)

Element	C	Cr	Ni	Mo	Mn	Si	P	S	Cu	N
Typical	0.02	25.5	9.5	3.4	1.0	0.50	0.02	0.01	1.75	0.12

Typical Mechanical Properties as Welded

Tensile Strength	Yield Strength	Elongation (%)	Hardness	Ferrite WRC (FN)	CVN Impacts (J)
119,000psi	89,000psi	18%	---	---	@ °

Diameter	Position	WFS	Opt Amps	Opt Volts	Range Amps	Range Volts
.035	Flat	365 / min	130-140	24-25	100-170	21-26
	Horizontal	365 / min	130-140	24-25	100-170	21-26
	Vertical-Up	310 / min	110-120	22-23	110-120	21-23
	Overhead	320 / min	120-130	23-24	120-130	22-24
.045	Flat	450 / min	180-200	25-27	135-250	24-32
	Horizontal	450 / min	180-200	25-27	135-250	24-32
	Vertical-Up	325 / min	150-170	24-26	135-200	24-26
	Overhead	425 / min	175-195	25-27	155-200	25-28
1/16	Flat	264 / min	220-240	25-27	170-300	24-31
	Horizontal	235 / min	200-220	25-27	170-270	24-29
	Vertical-Up	220 / min	190-210	25-26	170-230	24-27
	Overhead	235 / min	200-220	25-26	170-270	24-29

The above information is to be used as a guideline and is taken directly from the manufacturer's Technical Data Sheet. If additional information is needed please contact (800) 692-5930