

Exaton 2209 T1

2209 T1 is an all-position duplex flux cored electrode for use with 100% CO₂ or 75–85%Ar / 20–25% CO₂ mixed gas. It is designed for the welding of 22Cr-5Ni-2Mo-0.15N duplex stainless steel (UNS S31803), commonly known as 2205.

Specifications

Classifications	SFA/AWS A5.22 : E2209T1-4, E2209T1-1 EN ISO 17633-A : T 22 9 3 N L P C1 2 EN ISO 17633-A : T 22 9 3 N L P M21 2
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Welding Current	DC+
Alloy Type	Ni, Cr, Mo, N
Shielding Gas	M21, C1 (EN ISO 14175)

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
80%Ar/20%CO₂ Shielding Gas (M21)			
As Welded	650 MPa (94 ksi)	820 MPa (119 ksi)	25 %
CO₂ Shielding Gas (C1)			
As Welded	617 MPa (89 ksi)	825 MPa (120 ksi)	32 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
80%Ar/20%CO₂ Shielding Gas (M21)		
As Welded	-46 °C (-51 °F)	52 J (38 ft-lb)
CO₂ Shielding Gas (C1)		
As Welded	-46 °C (-51 °F)	50 J (37 ft-lb)

Typical Weld Metal Analysis %

C	Mn	Si	Ni	Cr	Mo	N
M21 Shielding gas						
0.03	1.05	0.45	8.9	22.75	3.5	0.14
C1 Shielding gas						
0.03	1.05	0.4	8.85	22.6	3.45	0.14

Deposition Data

Diameter	Current	Voltage	Wire Feed Speed	Deposition Rate
1.2 mm (0.045 in.)	130-220 A	25-30 V	5.8-14.4 m/min (228-567 in./min)	1.9-4.6 kg/h (4.2-10. lbs/h)