

SHIELD-BRIGHT 2209 AWS A5.22: E2209T1-4

FEATURES

Shield-Bright 2209 was developed for the welding of '2205' duplex stainless steels e.g. UNS S31803, S32205, and J92205. It can also be used for the welding of leaner grades of duplex stainless steels. It has been approved with a 25°C critical pitting temperature and impact toughness at -40°F (-40°C). Shield-Bright 2209 was developed for welding in all positions and performs particularly well in the vertical position with excellent slag removal.

CLASSIFICATIONS AND APPROVALS

- AWS A5.22: E2209T1-4
- ASME II SFA 5.22 E2209T1-4
- ASME IX F No. 6
- D.N.V.- For Duplex S/S
- L.R.- S 31803 S
- A.B.S.- AWS A5.22: E2209T1-4
- TUV

WELDING PROCESS

- FCAW (Flux Core)

INDUSTRIES

- Pipeline
- Process
- Pulp and Paper
- Petrochemical

TYPICAL MECHANICAL PROPERTIES

As Welded 75% Ar / 25% CO ₂	
Yield Stress	95 ksi, 650 MPa
Tensile Strength	120 ksi, 820 MPa
Elongation in 2"	25%

CHARPY V-NOTCH PROPERTIES

As Welded 75% Ar / 25% CO ₂	
Absorbed Energy @ -4°F (-20°C)	45 ft-lb, 61 J
Absorbed Energy @ -40°F (-40°C)	40 ft-lb, 54 J
Absorbed Energy @ -60°F (-51°C)	35 ft-lb, 47 J

WELD METAL ANALYSIS

75% Ar / 25% CO ₂	
C	0.03%
Mn	0.9%
Si	0.35%
Cr	22.5%
Ni	9.2%
Mo	3%
Cu	0.1%
N	0.16%
Ferrite	35 FN

SHIELD-BRIGHT 2209 continued

DEPOSITION TABLE						
Diameter in (mm)	Amps	Volts	Wire Feed Speed ipm (cm/min)	Deposition lb/hr (kg/hr)	Efficiency %	Electrical Stickout in (mm)
.035 (0.9)	100	23	265 (6.7)	2.9 (1.3)	83.9	1/2 - 1 (12.5 - 25.4)
	120	23	315 (8)	3.4 (1.5)	81.4	1/2 - 1 (12.5 - 25.4)
	140	25	405 (10.3)	4.6 (2.1)	82.6	1/2 - 1 (12.5 - 25.4)
	170	26	530 (13.5)	5.7 (2.6)	81.8	1/2 - 1 (12.5 - 25.4)
.045 (1.2)	130	25	227 (5.8)	4.25 (1.9)	84	1/2 - 1 (12.5 - 25.4)
	165	26	341 (8.7)	6.14 (2.8)	83	1/2 - 1 (12.5 - 25.4)
	190	28	445 (11.3)	8.08 (3.7)	84	1/2 - 1 (12.5 - 25.4)
	220	30	567 (14.4)	10.24 (4.6)	84	1/2 - 1 (12.5 - 25.4)
1/16 (1.6)	170	25	154 (3.9)	5.34 (2.4)	83	1/2 - 1 (12.5 - 25.4)
	210	27	193 (4.9)	6.89 (3.1)	82.5	1/2 - 1 (12.5 - 25.4)
	250	28	243 (6.2)	8.57 (3.9)	83	1/2 - 1 (12.5 - 25.4)
	300	29	321 (8.2)	11.43 (5.2)	83	1/2 - 1 (12.5 - 25.4)

PART NUMBER / PRODUCT INFORMATION		
Part Number	Description	UPC
252201512	SB 2209 035X33#PSP VP	662303037888
252201884	SB 2209 045X15# PSP VP/60CT	662303086961
252201504	SB 2209 045X33#PSP VP	662303037871
252201496	SB 2209 1/16X33#PSP VP	662303037864